

JOURNAL *of the* American Veterinary Medical Association

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PROCEEDINGS NUMBER

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A PRECIPITATE decline in swine practice as an aftermath of the government pig-purchase program may be regarded as one of the profession's contributions to recovery.

THE compensating factor may be an eventual hog-price level sufficient to induce a high degree of protection and conservation of the hog crop.

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H. Preston Hoskins, Secretary-Editor, 1230 W. Washington Blvd., Chicago, Ill.

C. P. FITCH, Pres., Saint Paul, Minn.

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OCTOBER, 1933

No. 4

THE PROCEEDINGS NUMBER

In this issue appear the proceedings of the 1933 convention, held in Chicago, August 14-18. Every member of the A. V. M. A. should read this full report of the meeting, even those who were in attendance. It is quite likely that only a very few of the several hundred members who were at the convention attended all of the general sessions when the reports of the officers and committees were presented. It might as well be acknowledged that there are many members of the A. V. M. A. who have no particular taste for sitting in a meeting-room and listening to the transaction of business which is largely routine. However, there is no legitimate excuse for a member to remain uninformed concerning what his national organization is doing when a convenient method for becoming informed is placed at his disposal, to be used at his leisure or whenever there is occasion for it. That is why an extraordinary effort is put forth to make the proceedings of each annual convention available each year, just as soon after the meeting as possible. In this connection it should be kept in mind that the House of Representatives, which will function at the meeting in New York next year, will handle practically all of the business of the Association that it has been customary to transact at general sessions in the past.



C. P. FITCH, M.S., D.V.M., D.Sc.
President of the American Veterinary Medical
Association, 1933-1934

OUR NEW PRESIDENT

Any introduction of Dr. C. P. Fitch, 54th president of the A. V. M. A., to the members of the organization seems superfluous. His frequent attendance at national conventions and meetings of veterinary and allied organizations in all parts of the country during the past twenty years has resulted in a very wide acquaintance throughout the veterinary profession.

Born on a farm near Sauquoit, Oneida County, N. Y., July 1, 1884, Dr. Fitch joins the group of A. V. M. A. presidents who have reached that high office "under fifty." On account of his varied activities it would not be correct to say that Dr. Fitch represents any particular branch of the veterinary profession. Research work, live stock sanitation and teaching, all would have a just claim to him. His election to the A. V. M. A. presidency marks the second time that Minnesota has received this honor. Dr. C. E. Cotton was the first veterinarian from the Gopher State to head the A. V. M. A., and it is something of a coincidence that both Dr. Fitch and Dr. Cotton are now very closely associated in veterinary sanitary control work.

Dr. Fitch is the fifth A. V. M. A. president who could claim some allegiance to Cornell University, although he is actually the first graduate of the New York State Veterinary College at Cornell University to be honored with the office of president of the A. V. M. A. Dr. D. E. Salmon, who was elected president in 1897, was a graduate of the old Veterinary Department of Cornell University, which preceded the organization of the New York State Veterinary College, in 1894. Dr. Leonard Pearson, who was elected president in 1899, held a bachelor degree (1888) from Cornell University but his veterinary course was taken at the University of Pennsylvania. When Dr. James Law was elected president in 1906, he was dean of the New York State Veterinary College but not a graduate of the institution. Dr. V. A. Moore, elected president in 1918, also was dean of the New York State Veterinary College and the holder of a bachelor degree (1887) from Cornell University, but his V. M. D. was conferred by the University of Pennsylvania in 1911. For these reasons, it will be seen that, strictly speaking, Dr. Fitch has the honor of being the first graduate of the New York State Veterinary College at Cornell University to head the A. V. M. A.

After attending country school, Dr. Fitch entered Sauquoit Academy and was graduated from the latter institution in 1901. He returned to the Academy for a year of postgraduate work and

then went to Hamilton College, at Clinton, N. Y. From this institution he received the degree of Bachelor of Science, with honors in mathematics and biology. He taught mathematics and science in the Glenridge, N. J., High School for a year and then spent another year in the First National Bank, at Utica, N. Y. In the fall of 1908, he started the study of veterinary medicine at Cornell University. He was graduated in 1911 with honors and remained on the staff of the New York State Veterinary College at Ithaca, until 1917. At that time he was Professor of Veterinary Pathology and Bacteriology. In the meantime (1909), he had received the degree Master of Science from Hamilton College, for work done at Cornell University. In 1917, Dr. Fitch was called to the University of Minnesota to become Professor of Animal Pathology and Bacteriology and Chief of the Division of Veterinary Medicine, which position he still holds. Iowa State College conferred the Doctor of Science degree in 1929.

As a member of the Minnesota State Live Stock Sanitary Board for eleven years, Dr. Fitch has taken an active part in the formulation of policies for the control of animal diseases in the State, with special reference to tuberculosis, Bang's disease, hog cholera and diseases of poultry.

Dr. Fitch joined the A. V. M. A. in 1912 and served as Resident Secretary for New York, 1915-16, and for Minnesota, 1918-19. He served practically continuously as a member of the Committee on Bang's Disease from 1919 until 1930, and during more than half of this period he was Chairman of the Committee. In 1930, he was elected a member of the Executive Board to represent District 5. Dr. Fitch has been secretary of the Minnesota State Veterinary Medical Society for fourteen years and has built up that organization until it is one of the largest in the country. He is a fellow of the American Association for the Advancement of Science and holds membership in the following organizations: Society of American Bacteriologists, American Public Health Association, American Association of University Professors, Society of Experimental Biology and Medicine, U. S. Live Stock Sanitary Association, and Minnesota Academy of Science. His honors include Phi Beta Kappa, Sigma Xi, and Gamma Sigma Delta.

His recent service on the A. V. M. A. Executive Board has given Dr. Fitch a splendid preparation for the presidency. He is fully conversant with the problems that have been facing the veterinary profession during recent years. As a research worker he is trained to analyze problems. His daily contact with practi-

tioners has familiarized him with the field of general practice. His experience with live stock sanitary control work in a state that has been eminently successful in handling animal diseases is another valuable addition to his professional equipment. Added to these, Dr. Fitch has demonstrated executive ability to round out his qualifications for president of the largest veterinary organization in the world. The A. V. M. A. should prosper during his administration.

DOCTOR WEST TO EXECUTIVE BOARD

Dr. R. L. West, of Waseca, Minn., has been appointed by President Fitch to represent District 5 on the A. V. M. A. Executive Board until such time as an election can be held to select a successor to Dr. Fitch for the balance of his term (until 1935). Dr. West (K. C. V. C. '18) is a general practitioner and recently served a term as president of the Minnesota State Veterinary Medical Society. This is the third time, during recent years, that a member of the Executive Board has been elected to the presidency, and in each case a practitioner has been appointed to fill the vacancy. In 1929, when Dr. T. E. Munce, of Pennsylvania, was elected, he appointed a practitioner, Dr. E. P. Althouse, to the vacancy. Last year, when Dr. N. F. Williams, of Texas, was elevated to the presidency he promptly appointed Dr. J. C. Flynn to this vacancy. Both Dr. Althouse and Dr. Flynn subsequently were elected to the Board by the members in their respective districts.

TWO PICTURES

On adjacent pages appear two A. V. M. A. banquet photographs, taken about twenty-four years apart. A comparison of the two scenes may prove interesting to some, especially those members of the A. V. M. A. who were in attendance at the meeting held in Chicago in 1909. Of course, one of the first things to impress you is the contrast in the costumes worn by the ladies in the two groups. The proportion of the fair sex in the 1933 picture seems to be somewhat greater than in the earlier one. Of the 143 ladies in attendance at the banquet in 1909, only slightly more than one-third appear to have attended the banquet. It is interesting to note that in 1909 everybody stood up when the picture was taken. There has been considerable improvement in .



A. V. M. A. BANQUET, GOLD ROOM, CONGRESS HOTEL, CHICAGO, SEPTEMBER 9, 1909



A. V. M. A. BANQUET, GRAND BALLROOM, PALMER HOUSE, CHICAGO, AUGUST 16, 1933

the technic of flashlight photography since then, including the elimination of the "smoke nuisance."

It has been suggested that we publish a list of those who attended both banquets. Already a list of eight names has been compiled. Are *you* in both pictures? If so, drop the JOURNAL a line. The list will be published next month.

APPLICATIONS FOR MEMBERSHIP

(See July, 1933, JOURNAL)

FIRST LISTING

- CAMERON, HUGH S. 515 Dryden Rd., Ithaca, N. Y.
D. V. M., Cornell University, 1931
Vouchers: R. R. Birch and W. A. Hagan.
- DUNCAN WILLIAM G. Kiowa, Colo.
D. V. M., Colorado Agricultural College, 1932
Vouchers: I. E. Newsom and B. R. McCrory.
- GROPPE, CARL W. Stamm's Lane, Wheeling, W. Va.
D. V. M., Ohio State University, 1932
Vouchers: Earl N. Moore and J. H. Rietz.
- McKENZIE, K. J. 528 Division St., Northfield, Minn.
V. S., Ontario Veterinary College, 1892
Vouchers: R. Fenstermacher and C. P. Fitch.
- RASMUSSEN, W. E. 148 S. 1st St. E., Provo, Utah
D. V. M., Colorado Agricultural College, 1928
Vouchers: N. C. Spalding and W. H. Hendricks.

Applications Pending

SECOND LISTING

(See September, 1933, JOURNAL)

- Betzold, Curtis W., 4907 King Hill Ave., Saint Joseph, Mo.
- Bramer, Clarence N., 1817 Church St., Evanston, Ill.
- Bratt, H. M., 706 S. 24th St., Terre Haute, Ind.
- Burnam, Scott A., 1640 Linden, Oklahoma City, Okla.
- Clark, Geo. L., 110 Jackson St., Columbia City, Ind.
- Dunham, T. F., Clinton, Okla.
- Etchison, Archie C., Assumption, Ill.
- Fisher, Milton R., 9 Municipal Bldg., Saint Louis, Mo.
- France, Walter, Boonville, Ind.
- Glenn, H. H., 615 N. E. 7th St., Oklahoma City, Okla.
- Grace, Maj. Charles O., Fort Benning, Ga.
- Gulick, G. G., 2725 N. W. 21st St., Oklahoma City, Okla.
- Hayer, O. T., Carthage, Ill.
- Hill, Geo. H., 611 N. Aldrich St., Geneseo, Ill.
- Horsland, James E., c/o P. Burns & Co., Ltd., Calgary, Alta, Can.
- Jones, T. A., 614 N. Central, Oklahoma City, Okla.
- Kincaid, Albert R., Stonington, Ill.
- Kitzhofer, Joseph H., 423 N. W. 32nd St., Oklahoma City, Okla.
- Lang, J. P., Crystal Lake, Ill.
- Lehman, J. L., Edgar, Wis.

Leonhart, O. H., 1621 Birch, Oklahoma City, Okla.
McCoy, J. A., Washington Court House, Ohio.
Massie, W. B., Boston, Ind.
Meredith, S. M., 1410½ N. W. 21st St., Oklahoma City, Okla.
Moguel M., Francisco, Gral. Gutierrez, 1708, Nuevo Laredo, Tamps., Mexico.
O'Neal, C. E., Box 725, Jackson, Miss.
Parker, Roy R., 3317 W. 17th St., Oklahoma City, Okla.
Schafstall, Albert C., New Washington, Ohio.
Schwermann, H. E., New Ulm, Minn.
Seidell, H. A., 710 Prospect Rd., Des Moines, Iowa.
Stoker, H. S., Stillwater, Pa.
Strange, C. Roy, State Capitol, Madison, Wis.
Stults, Joseph W., 629 N. E. 11th St., Oklahoma City, Okla.
Turk, R. D., Kansas State College, Manhattan, Kan.
Vilott, W. T., 909 N. E. 29th St., Oklahoma City, Okla.
Wadleigh, Herbert C., Seaton, Ill.
Walsh, F. E., Iowa State College, Ames, Iowa.

The amount which should accompany an application filed this month is \$6.25, which covers membership fee and dues to January 1, 1934, including subscription to the JOURNAL.

COMING VETERINARY MEETINGS

- Interstate Veterinary Medical Association. Elks Building, Omaha, Neb. October 9, 1933. Dr. G. L. Taylor, Secretary, Plattsmouth, Neb.
- American Public Health Association. Indianapolis, Ind. October 9-12, 1933. Willimina Rayne Walsh, Secretary, 450 Seventh Ave., New York, N. Y.
- Chicago Veterinary Medical Society. Hotel LaSalle, Chicago, Ill. October 10, 1933. Dr. O. Norling-Christensen, Secretary, 1904 W. North Ave., Chicago, Ill.
- Eastern Iowa Veterinary Association. Hotel Montrose, Cedar Rapids, Iowa. October 10-11, 1933. Dr. Iva Dunn, Secretary, Atkins, Iowa.
- American Humane Association. Hartford, Conn. October 10-12, 1933. Mr. N. J. Walker, General Manager, 80 Howard St., Albany, N. Y.
- Maine Veterinary Medical Association. State House, Augusta, Me. October 11, 1933. Dr. L. E. Maddocks, Secretary, R. F. D. 2, Augusta, Me.
- Southeastern Michigan Veterinary Medical Association. Detroit, Mich. October 11, 1933. Dr. A. S. Schlingman, Secretary, Parke, Davis & Co., Detroit, Mich.
- Tulsa County Veterinary Association. Tulsa, Okla. October 12, 1933. Dr. J. M. Higgins, Secretary, 3305 E. 11th St., Tulsa, Okla.

- Inter-State Veterinary Medical Association. Sioux City, Iowa. October 12-13, 1933. Dr. W. A. Aitken, Secretary, Merrill, Iowa.
- Illinois Veterinary Conference, University of. University of Illinois Medical School, Chicago, Ill. October 16-18, 1933. Dr. Robert Graham, Secretary, University of Illinois, Urbana, Ill.
- Kansas City Veterinary Association. Baltimore Hotel, Kansas City, Mo. October 17, 1933. Dr. J. D. Ray, Secretary, 1103 E. 47th St., Kansas City, Mo.
- Southern California Veterinary Medical Association. Chamber of Commerce Building, Los Angeles, Calif. October 18, 1933. Dr. T. G. Beard, Secretary, 3684 Beverly Blvd., Los Angeles, Calif.
- Pennsylvania State Veterinary Medical Association. Lancaster, Pa. October 26-27, 1933. Dr. Thos. D. James, Secretary, 816 N. Main Ave., Scranton, Pa.
- Florida State Veterinary Medical Association. St. Petersburg, Fla. October 30-31, 1933. Dr. J. V. Knapp, Secretary, The Capitol, Tallahassee, Fla.
- Central New York Veterinary Medical Association. Onondaga Hotel, Syracuse, N. Y. November 2, 1933. Dr. W. B. Switzer, Secretary, R. 5, Oswego, N. Y.
- New Hampshire Veterinary Medical Association. Concord, N. H. November 3, 1933. Dr. F. S. Gray, Secretary, 8 Rogers St., Plymouth, N. H.
- Hudson Valley Veterinary Medical Society. Poughkeepsie, N. Y. November 8, 1933. Dr. J. G. Wills, Secretary, Box 751, Albany, N. Y.
- Purdue University, Veterinary Short Course. Purdue University, LaFayette, Ind. November 14-16, 1933. Dr. R. A. Craig, Department of Veterinary Science, Purdue University, LaFayette, Ind.
- Southern States Veterinary Medical Association. Atlanta, Ga. November 23-24, 1933. Dr. M. R. Blackstock, Secretary, 157 W. Hampton Ave., Spartanburg, S. C.
- United States Live Stock Sanitary Association. Hotel LaSalle, Chicago, Ill. December 6-8, 1933. Dr. O. E. Dyson, Secretary, 45 Live Stock Exchange, Wichita, Kan.
- Twelfth International Veterinary Congress. New York, N. Y. August 13-18, 1934. Dr. H. Preston Hoskins, General Secretary, 1230 W. Washington Blvd., Chicago, Ill.

PROGRESS IN THE MEDICAL SCIENCES*

By C. F. SCHLOTTHAUER, Rochester, Minn.

Division of Experimental Medicine, The Mayo Clinic

The following report is submitted with the hope that it may stimulate and encourage your interest in further medical research.

Because of the many startling discoveries and the rapid advance of scientific medicine during the past 50 years, many are led to believe that little more is to be learned. This, however, is not true. Each new discovery merely leads to another. Let us briefly go back to the origin of scientific medicine and note the time and character of epochal events in the progress of medicine.

It is stated that scientific medicine has its beginning in the teachings of Hippocrates, 300 B. C. However, because of politics, jealousies and certain religious beliefs, its progress was hampered. Dissection of the human cadaver was prohibited or looked upon with ill favor and methods for animal experimentation were not developed. The ancients had to diagnose disease and recommend its treatment by observation of the living. It was not until the great universities were founded in the 13th and 14th centuries and the development of printing that progress in the study of scientific medicine was marked.

Early in the 16th century the works of Hippocrates and of Galen were published and made available. Andreas Vesalius was elected to the chair of surgery and anatomy in Padua and pursued his investigations in anatomy which later earned for him the title of father of scientific anatomy. He dissected the bodies of human subjects and some of the lower animals. In 1542, he published his most important work, "Tabulae Anatomicae." This placed anatomy on a scientific basis.

William Harvey, in 1602, received the degree Doctor of Medicine from the University of Padua and returned to Cambridge in 1628, where he published his famous text, "Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus." By actual dissection and observation on living animals he proved that the blood does circulate.

In 1796, Edward Jenner performed his first vaccination for smallpox. He vaccinated a boy against this disease by inoculating him with some material obtained from a cow-pox pustule of a

*Presented as the address of the Chairman of the Section on Small Animals, seventieth annual meeting of the American Veterinary Medical Association, Chicago, Ill., August 14-18, 1933.

cow. This earned for him enduring fame as one of the great benefactors of mankind. Cow-pox virus still is employed in smallpox vaccination.

In 1833, William Beaumont published his observations on gastric digestion. His were the first actual observations made. They were made through an accidental gastric fistula in a man, Alexis St. Martin.

The discovery of ether anesthesia, in 1841 by Dr. Crawford Long, a physician, marked another great epoch in medicine. The effects of ether in the prevention of pain were being investigated about the same time by Dr. William Morton, a dentist. The work of these great men led to our present general use of anesthetics.

Late in the 17th century, Von Leeuwenhoek developed the microscope. With it he observed and described some of the tiny microscopic organisms.

During the years 1849 to 1860, Pollander, Rayer, Davaine, Brauell, Delafond and Pasteur observed the organisms of anthrax. Davaine and Pasteur felt they were of etiologic significance. However, it remained for Robert Koch, in 1876, to prove definitely that the anthrax bacillus was the cause of anthrax.

Joseph Lister, after reading the work of Pasteur, was led to believe that such infections as erysipelas, septicemia, tetanus and hospital gangrene were the results of contamination of the wounds with germs. He, therefore, used carbolic acid in the operating-room as a spray, covering the surgeons and the wounds, thus preventing infection. In 1867, he published his essay entitled, "On the antiseptic principle in the practice of surgery." This marked the beginning of antiseptic and aseptic surgery.

In 1880, Louis Pasteur produced the first bacterial vaccine, using the anthrax bacillus. This made anthrax of double historical significance. It was the first disease of man and animals shown to be caused by a microscopic organism and was the first disease against which a bacterial vaccine was found to be effective.

In 1885, Pasteur performed his second noble deed for mankind. On July 6, he administered his first human antirabic vaccine treatment.

The work of Pasteur and Koch marked the beginning of modern bacteriology. Our knowledge of this branch of science advanced rapidly. The infectious nature of certain diseases was recognized and the etiologic agent of many was isolated. Until today, most infectious diseases of man and lower animals can

be prevented or cured by proper sanitation, preventive vaccination, serums and antitoxins.

As one goes deeply into the history of medicine, one is impressed with the important part that animals have played, and still do, in the transmission of certain infectious diseases to man. Thomas G. Hull recently published an excellent book, "Diseases Transmitted from Animals to Man." This includes an appallingly large number of diseases. However, the lower animals did not fail man, for as methods of animal experimentation were developed they were used in combating many diseases. Nearly all of our serums, antitoxins and many vaccines are prepared from animal tissues. Likewise, many animal tissues are used to combat non-infectious disease.

Continued animal experimentation is essential for the advancement of medicine. However, it is costly. Therefore, it would appear that since man and animal have always been and still are closely associated in health and sickness, physicians and veterinarians could serve mankind better if they were more closely united. They must work together. Both can profit by observing the other fellow's problems, by exchange of advice and suggestions. Every veterinarian should know well at least one physician and every physician should know well at least one veterinarian. It is only by such coöperative work that progress in medicine can go on at reasonable cost and rate of speed.

Experiments on Animals

"How magnificent would be the possible collaboration of the antivivisectionist and the scientist, who is able to restrict his work to the perfection of methods that might lead to a reduction in the number of experiments on animals," says an editorial in the *Veterinary Record* for July 29, 1933. "For instance, the development of media upon which filtrable viruses could be cultivated, the synthesis of biological products that can be obtained at present only as the result of some animal experiment, the elucidation of some reliable *in vitro* methods of assaying these biological products; these and other problems, if successfully solved, would have the desired effect. Already some successful work has been accomplished along these lines, but it would receive a great impetus if antivivisection societies would support it both morally and financially, while such a decision on their part would be universally acclaimed by all animal lovers."

CONTROL OF AVIAN TUBERCULOSIS IN ILLINOIS*

By H. D. CHAMBERLAIN, *Belvidere, Ill.*

*In Charge of Avian Tuberculosis Investigation
Illinois State Department of Agriculture*

Gentlemen, it gives me great pleasure to meet with you this morning in the Section on Poultry of the A. V. M. A., to renew old friendships and form new ones, and I appreciate the high honor conferred upon me in being selected to act as the Chairman of this Section. But I do not regard it as a personal honor, of which, in my opinion, I am not worthy, but an honor to the Department of Agriculture of the States of Illinois, which I have been given the honor to represent for the last six years, in the work conducted by the Department in avian tuberculosis control in the flocks of chickens of our State and in the relation of avian tuberculosis to the cattle and hogs of our herds.

The splendid program provided for the consideration of this section is the result of the good work done by the Secretary of the Section on Poultry, Dr. F. D. Patterson, and the Secretary of the A. V. M. A., Dr. H. Preston Hoskins, to each of whom great honor is due. At this time I wish to give you some of the results found in the field work conducted by the Department and the conclusions arrived at, but knowing full well the dryness of statistics, I am going to refrain from reading but a few and leave them for consideration at your leisure when you read the published report.

The greater portion of the field testing of flocks has been conducted in different yearly periods and in different counties. The work has been conducted by three to five State-employed veterinarians with the assistance of local veterinarians in the counties where the work has been conducted. The Department desired to interest the local veterinarians in poultry-disease control as much as possible, and, while the work was devoted to the tuberculosis angle, the poultry-disease control, sanitation and coop conditions were given as much consideration as possible.

In the testing of flocks, we desired to show the percentage of infection in old and young chickens and had to provide some particular time to change the date of classification. So, the first of September, each year, was the date selected in this report. There are very few chickens of the hatch of any year which were tested prior to September 1, as our work conducted prior to these reports had shown that only in very highly infected flocks, and in

*Presented as the address of the Chairman of the Section on Poultry, seventieth annual meeting of the American Veterinary Medical Association, Chicago, Ill., August 14-18, 1933.

these only in very early hatched chickens, did we get any reactors, prior to about September 1, in chicks that had been raised under ordinary farm conditions with free range.

So you will see the progressive infection of young chickens from September of one year till the following September, when they are put in the old class. All of our reactors were killed under our supervision at poultry-packing plants, were passed upon as to their food value after postmortem inspection, and were paid for by the poultry packer. We always had the very best coöperation with the packers. The poultry farmer nearly always came in and saw the inspection of the chickens and we endeavored and generally were able to show him the importance of the yearly selling of all of his old chickens, which method, combined with good sanitation, is, in the opinion of the Department, the solution of the avian tuberculosis problem.

The high percentage of avian tuberculosis in the hogs of the State also is shown and by comparing the retentions of parts of hogs killed at the three largest points of slaughter in Illinois and the percentage of infections of old chickens in the same locality, you will find they are nearly the same. The hogs tuberculin-tested were breeding hogs over one year old and injected with bovine and avian tuberculins.

From June 1, 1930, to February 1, 1931, a tuberculin test was conducted in five counties of the State in widely different localities, with the following results in the chickens and hogs: The infection in chickens varied from 4.2 to 6.4 per cent in different counties and in hogs from 9 to 19.1 per cent. The high and low points of infection of both chickens and hogs were in the same counties.

Chickens

Flocks tested:

Clean.....	536	
Infected.....	752	1,288

Chickens injected:

Old.....	65,047	
Young.....	125,168	190,215
Passed.....	180,865	
Reacted.....	9,350	190,215

Reactors (4.9%):

Old (11.8%).....	7,693	
Young (1.3%).....	1,657	9,350

Passed for food.....	6,366
Condemned.....	2,655
Not posted, died, etc.....	329

Hogs

Herds tested:

Clean	374	
Infected	243	617

Hogs injected..... 4,802

Reactors (13.3%)

To avian tuberculin only (12.8%).....	615	
To bovine tuberculin only (0.35%).....	17	
To both tuberculins (0.2%).....	10	642

From December 1, 1931, to December 1, 1932, tuberculin tests were made in selected flocks of chickens and herds of hogs in four counties with the results shown in tables I and II.

TABLE I—*Tuberculin tests made in selected flocks of chickens in four counties of Illinois.**

		BUREAU	McLEAN	LIVINGSTON	LA SALLE	TOTAL
Chickens Injected	Old	18,312	14,011	20,349	43,416	96,088
	Young	59,526	34,136	53,411	103,729	250,802
	Passed	75,104	45,873	68,792	141,470	331,239
	Reacted	2,734	2,274	4,968	5,675	15,651
Reactors	Old	2,418	1,557	3,220	5,376	12,571
	Young	316	717	1,748	299	3,080
Passed for Food		1,930	1,462	3,198	3,823	10,413
Condemned		687	662	1,626	1,519	4,494
Not Posted, Died, etc.		117	150	144	333	744
Flocks Tested	Clean	193	234	308	245	980
	Infected	279	212	430	407	1,328
Total Re- actors (%)	Old	13.25	11.1	10.58	12.4	13.08
	Young	0.53	2.1	3.27	0.28	1.23

*The increase of the infection in a flock as the chickens become older is shown in this table. The spring hatch of any year are not tested until after September 1, when they are designated as young and remain in that class until the following September. La Salle County, started in September: young reactors, 0.28 per cent; old reactors, 12.4 per cent. Bureau County, started in December, 1932: young reactors, 0.53 per cent; old reactors, 13.25 per cent. McLean County, started in March: young reactors, 2.1 per cent; old reactors, 11.1 per cent. Livingston County, started in July: young reactors, 3.27 per cent; old reactors, 10.58 per cent.

TABLE II—*Tuberculin tests made in selected herds of hogs in four counties of Illinois.*

		BUREAU	MCLEAN	LIVINGSTON	LA SALLE	TOTAL
Herds of Hogs Tested	Clean Infected	108 30	185 64	167 54	145 44	605 192
Hogs Injected		1,287	1,472	779	666	4,202
Total Reactors	To Avian Tuberculin	80	114	94	71	359
	To Bovine Tuberculin	3	5	1	4	13
	To Both Tuberculins	3	7	3	0	13
Total Reactors (%)	To Avian Tuberculin*	6.21	7.7	12.06	10.66	8.54
	To Bovine Tuberculin†	.....	0.34	0.0	0.0	0.3+
	To Both Tuberculins	.....	0.47	.....	0.0	0.3+

*In 12 herds, containing 129 breeding hogs which were kept in close contact with chickens, 51 reacted to the avian type of tuberculin.

†One farm which had three out of four hogs react to the bovine type of tuberculin had several cows react to the tuberculin test recently.

TABLE III—*Results of tuberculin tests made in 137 flocks and herds.*

DATES	CHICKENS TESTED	REACTORS		HOGS TESTED	REACTORS	
		NUMBER	%		NUMBER	%
First Test, October to December, 1930	28,570	1,145	4.0	278	50	18.0
Retest, December, 1931, to February, 1932	24,696	572	2.3	250	9	3.6

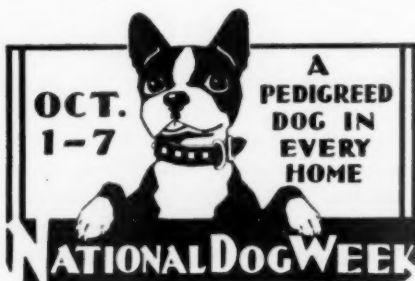
We did not receive the desired results in the reduction of the infection in the chickens shown in table III, as we had not been able to impress upon the flock-owners the necessity of selling the old chickens of their flocks, and found several who had not done so. Their percentage of reactors, therefore, was nearly as high on the retest as on the initial test. But all of them had used the McLean County plan of raising their hogs, on clean ground away from chickens the second year, and we had a reduction from 18 per cent to 3.6 per cent.

There has been no extensive work done in Illinois during this year in avian tuberculosis control. The policy has not been decided upon. Very likely it will be along the lines of the use of information gained in the work done in the past, in encouraging the local veterinarian to become more interested in poultry practice, in bringing the results to the attention of the poultry raiser, and, through the influence of veterinarians, poultry dealers, poultry shows and farm organizations, teaching him to sell his old poultry yearly, and sanitation, both as to yards and coops.

Illinois Veterinary Conference

The fourteenth annual Illinois Veterinary Conference will be held at the College of Medicine, University of Illinois, Chicago, October 16-17-18, 1933. The program for the Conference has been arranged by the Division of Animal Pathology and Hygiene and the College of Veterinary Medicine of the University of Illinois in cooperation with the Illinois State Veterinary Medical Association. This is the first time that the Conference has been scheduled for Chicago, all previous conferences having been held at Urbana.

Dr. K. F. Meyer, of the University of California, will deliver three Gehrman lectures during the Conference. The first will be on "Undulant Fever, Bang's Disease and Malta Fever," the second on "Equine Encephalomyelitis," and the third on "Psittacosis." Prominent veterinarians have been selected to preside at the six sessions. Dr. M. F. Barnes, Director of Laboratories, Pennsylvania Bureau of Animal Industry, Harrisburg, will be the honor guest at a luncheon in the Medical Building, on Tuesday, October 17. Major R. A. Kelser, V. C., U. S. A., will present "Mosquitoes as Vectors of Equine Encephalomyelitis." Dr. C. H. Stange, of Iowa State College, will discuss "Problems in the Field of Veterinary Education."



A CENTURY OF HOG CHOLERA*

By A. T. KINSLEY, *Kansas City, Mo.*

INTRODUCTION

Hog cholera has prevailed in the United States for one hundred years. The control of this malady is one of the most important problems confronting the veterinary profession at this time. This problem concerns not only federal and state regulatory officials but also the practicing veterinarian.

From the economic viewpoint, cholera is of vital interest to the swine industry in the United States. The estimated annual loss from cholera is at least \$20,000,000. To this sum should be added from \$4,000,000 to \$10,000,000 for vaccination. There were approximately 54,000,000 hogs in the United States on January 1, 1932. The cost of cholera would therefore be an average of fifty cents per hog for the year 1932. This cholera cost has not changed materially during the last fifteen or twenty years.

HISTORICAL REVIEW

Cholera, according to history, occurred in Ohio in 1833. This was the first report of this malady in North America. From Ohio, the disease spread in a direct ratio to the transportation of swine to other states, and within a few years outbreaks of cholera occurred in all hog-raising states. There is a difference of opinion relative to the origin of cholera, but regardless of the primary origin the disease is now prevalent in practically all hog-raising countries.

ANTI-HOG CHOLERA SERUM AND VIRUS

Dorset, McBryde and Niles demonstrated, in 1903, that a filtrable virus is the cause of hog cholera. These same investigators later devised a practical method of producing anti-hog cholera serum and also a method for immunization of swine against cholera. By 1913, there were 23 state and 76 commercial establishments producing anti-hog cholera serum and virus. Because of the importance of anti-hog cholera serum, virus and other biologics in the prevention, diagnosis and control of diseases of live stock, the United States Department of Agriculture was authorized by an Act of Congress, in 1913, to license and supervise production in establishments that were shipping veterinary biologics interstate. State serum plants, with two or

*Presented at the seventieth annual meeting of the American Veterinary Medical Association, Chicago, Ill., August 14-18, 1933.

three exceptions, have discontinued operation and the number of commercial establishments has varied from year to year. At the close of 1932, in the United States, there were 49 licensed establishments and they produced 1,071,347,667 cc of serum and 54,780,702 cc of simultaneous virus. The magnitude of the serum industry can be stated in another way. The 1932 production required approximately:

109,000—120-lb. pigs for hyperimmunizing virus.

140,000—250-lb. hogs for hyperimmunes.

45,000—80-lb. pigs for simultaneous virus.

3,570—80-lb. pigs for test purposes.

In other words, approximately one hog in each 185 was used in serum-virus production. There was sufficient simultaneous virus produced, in 1932, for approximately a 1-cc dose and sufficient serum for approximately a 20-cc dose for each and every hog in the United States.

From 1915 to 1932 inclusive, there were over 12,000,000,000 cc of serum and over 650,000,000 cc of simultaneous virus produced by licensed plants. There was five times as much serum produced in 1932 as there was in 1915, and, according to estimates, there were approximately five times as many hogs vaccinated in 1932 as in 1915, and yet the annual cholera loss, excepting for 1926, remained practically the same, although it is conceded that there is no other biologic that is as efficient as anti-hog cholera serum. The fact that cholera and vaccination have cost the swine industry of the United States over a half billion dollars, in the last eighteen years, should be proof sufficient that there is something basically wrong with the present system. This persistent and continuous cholera loss indicates that at least most of the states in the principal hog-raising section of the United States have either insufficient regulations or laws for the efficient control of cholera or the officials are not enforcing them.

CONTROL MEASURES

The losses incident to cholera can be reduced by quarantine, regulation of transportation, competent veterinary service, and restricting the distribution and use of virus.

1. *Quarantine*: The losses from cholera may be diminished appreciably by effective quarantine. Before the advent of serum, a considerable percentage of hogs were saved in many cholera-infected herds by the simple procedure of separation of those with normal temperature, dipping and removing them to pens not recently occupied by hogs, and a strict quarantine of the

diseased lot. Obviously the percentage saved by this method depended upon the length of time that the infection had prevailed when the separation was made. A second temperature reading of the previously normal hogs taken on the second or third day and the removal of those showing fever was a further safeguard. A comparison of this simple method with the present method of vaccination as to cost and percentage of hogs saved would probably reveal some interesting information.

Most states have regulations or laws requiring quarantining of farms on which cholera is found and the posting of notices to that effect. How many hog cholera quarantine posters have you seen in the last ten years? Unfortunately, many live stock men and some veterinarians apparently have a diminishing regard for state quarantine regulations and particularly those that pertain to cholera. This is apparently due to the fact that it is considered that vaccination will suffice. One difficulty of controlling cholera by quarantine is due to the fact that there are a few farmers that have faith in cholera remedies and refuse to have their hogs vaccinated, even though they are exposed or actually infected. The loss in such herds usually is large and as a rule the carcasses are not disposed of properly and herds on nearby farms are endangered. Such farmers as well as those that hide out diseased hogs, when they call a veterinarian, should be rigidly quarantined and prosecuted if necessary.

2. *Transportation*: Practically every state has regulations or laws regulating the transportation of diseased animals and yet many farmers unhindered by sanitary officials ship their swine to market, as soon as disease becomes evident, thus scattering infection on the highways, in local stock yards, railway cars, railway rights of way, and public stock yards. Local traders and dealers travel, usually by truck, from farm to farm, buying and trading healthy and sick swine, and scattering infection as they go.

Community sales have been and are being held regularly in numerous places in the Central West. Hundreds of hogs pass through these sales. In many of these sales there have been no requirements for either health certificates or vaccination. Thus, hogs are sold, regardless of their condition, and transported in many instances interstate without any restriction and yet practically every state has laws prohibiting such activities, but obviously those laws, at least in many instances, are not being enforced.

Community hog clinics: In some localities county agents and representatives of lay serum companies conduct so-called hog

clinics. Farmers are previously requested to bring sick hogs for demonstration purposes to those clinics. A better method of disseminating infection could not be devised. Are veterinary clinics properly conducted to prevent possible spread of infection?

Centrally located rendering plants with their collecting truck routes that extend from 50 to 150 miles in all directions, unless they have proper equipment and use the greatest of care, are a ready means of scattering infection on farms, as well as on the highways. It is true that the rendering plants are not so active now as they were during the high price of grease, but they are still sufficiently active that they should be regulated. Many outbreaks of cholera have been traced to the movement of apparently healthy swine to other locations. These conditions are doubtless partly due to inefficient and half-baked plans that had official approval in the past. The enforcement of effective transportation requirements regulating the movement of swine and carcasses of hogs by rail, truck, wagon and other vehicles and the driving of swine on public highways is essential to the control of cholera and other infective diseases.

3. *Efficient veterinary service*: The practical application of disease control measures can be made by qualified practitioners. Certain objections have been raised to local practitioners serving their clients in an official capacity, but in general the objections are not well founded, as is evidenced by the efficient service rendered by practicing veterinarians in area tuberculosis testing in many states. After all, official veterinarians do not differ from practitioners in ability or integrity. Losses following vaccination can be reduced if practitioners will exercise greater care in ascertaining the exact condition of every herd prior to vaccination.

It is well known that excessive losses due to cholera and complications may follow the simultaneous vaccination of swine that are heavily parasitized or affected with other disease. Thus, new foci of cholera are established. Virus persists in the bloodstream of healthy swine that are simultaneously treated for from 8 to 17 days and persists for a longer time in diseased swine that are simultaneously treated. It is generally conceded that simultaneously treated swine will not eliminate virus unless they become visibly sick. Thus, should unhealthy swine be simultaneously treated and become visibly sick, even though they do not die, they probably eliminate virus. Dinwiddie found that activity of virus in a hog results in leucopenia, which diminishes the

combative power and thus renders them more susceptible to most diseases other than cholera and for this reason swine that are to be given the simultaneous treatment should be healthy.

4. *Restriction on the distribution and use of virus:* Although the United States Live Stock Sanitary Association, composed largely of federal and state sanitary officials, has repeatedly recommended keeping virus out of the hands of laymen, many of those officials must have had their fingers crossed when they voted, for such restrictions, with a very few exceptions, have not been forthcoming. In fact, approximately 50 million cc of serum and virus *q.s.* has been used annually in Illinois by laymen and large quantities are used in other states. Even though it is conceded that a lay vaccinator may become expert in the mechanical act of vaccinating, he is not competent to examine a living diseased hog or the carcass of a hog dead of disease and attempt to make a correct diagnosis. The relative efficiency of vaccination by veterinarians and by laymen is evidenced in Luckey's report of cholera control in Missouri in 1917:

Of 102,838 hogs in 2,476 infected herds, vaccinated by deputy state veterinarians, 11,312 (or approximately 11%) died and of 17,950 hogs in 232 herds, many of which were not infected, that were vaccinated by laymen, 3,263 (or 18%) died.

In Maryland it has been found that where sick herds are serum-treated by veterinarians, 8 per cent more are saved than in similar herds that are serum-treated by laymen.

The present A. V. M. A. Special Committee on Agricultural Extension Service gave their views on lay-vaccination as follows:

Veterinarians are under a legal and professional responsibility to report outbreaks of cholera to regulatory officials and to use their professional knowledge in preventing the spread of same. County agents and extension workers have no such professional or legal responsibility and in many instances not only fail to report such centers of infection, but actually cover up outbreaks of cholera which they themselves have started. This is responsible for much loss from cholera that this country now sustains in spite of the high efficiency of vaccination for the prevention of this disease.

The viability and the infectiousness of virus are important factors in the control of cholera by vaccination. The proper care of virus and its use determines success or failure. In the mechanical injection of virus, as usually done by the ordinary layman and some veterinarians, leakage from the needle puncture is given little or no attention. It is true that the viability of virus is of relatively short duration. However, Whiting found the viability of virus persisted for one to fifteen days in dried blood, and further, Roderick and Schalk found that 0.00,002 cc

of virus blood would produce cholera in a susceptible pig. Many times this quantity of virus blood may escape from the needle-puncture wound of one vaccinated hog. Thus, if leakage of virus is permitted, the premise becomes contaminated, and if one or more pigs should be missed in the vaccination, a new center of hog cholera is almost certain to be established.

LAY VACCINATION

The present extent of lay vaccination is due to several factors. Many veterinarians were slow in adapting themselves to swine practice, for little or no effort had ever been made to make it attractive. During the last twenty-five years, there has been upward of one hundred bulletins and leaflets published by experiment stations and the U. S. Department of Agriculture on hog cholera. Thousands of those publications were distributed to farmers. Many of the publications gave specific instructions for the vaccination of swine. This was discouraging and many veterinarians never took up this line of work.

About twenty years ago, more than half of the states maintained serum plants, the most of which distributed serum and virus direct to the farmer, through the county agent, who is supposed to have given instructions for and demonstrations of vaccination. It is, therefore, amazing that there is not more lay vaccination.

It may be granted that the lay vaccination that has been done by farmers and county agents in infected and exposed herds diminished the immediate losses from cholera. However, it will have to be conceded that the miscellaneous use of virus in non-infected herds established hundreds of new centers of cholera. That means that the lay vaccinators protected the few at the cost of endangering the many.

THE 1926 OUTBREAK

For several years prior to the 1926 outbreak, there was apparently a diminishing interest in cholera control measures other than vaccination. In fact, most regulatory officials were surprised when the outbreak occurred. The commercial serum interests are usually quite well informed on the prevalence of cholera, through the activities of their field representatives, but they did not anticipate the 1926 epizootic and unfortunately were unprepared to supply the serum demands. It is gratifying to note that only sixty hogs per thousand were lost in the states involved during this outbreak, whereas 130 per 1,000 were lost

in a previous outbreak. The diminished loss in the 1926 outbreak must be attributed to vaccination rather than to other control measures, and the losses probably would have been less than 60 per 1,000 had there been an ample supply of serum.

Waves or extensive outbreaks of cholera, as in 1926, are prone to occur every ten or fifteen years. The source and manner of the spread of infection in such outbreaks has not been determined. In most of the territory where this outbreak occurred there had been excessive rain and the major portion of the hogs were susceptible. On the other hand, practically the same weather conditions prevailed in Canada, and there had been no vaccination and yet there was no outbreak of cholera. In fact, there were only 775 hogs affected with or exposed to cholera in Canada from April 1, 1926, to March 31, 1927.

It is evident that infection was present and became active on hundreds of farms during the course of a few weeks in 1926. It is probable that hogs had been simultaneously vaccinated on most if not all of these farms prior to 1926. Is it possible that simultaneous vaccination permanently infects premises? This is not in accord with experimental data. If the premises were infected by previous vaccination, why and how was the infection liberated almost simultaneously on hundreds of farms in such a wide area?

The fact remains that, when all known allowances are made, we are still unable to explain the cause of the 1926 outbreak or to foretell when another such may occur.

By a careful consideration of the facts presented, in the foregoing review of cholera in the United States, it is evident that the methods used have not been effective and will not suffice for control or eradication.

Sanitary authorities should not be surprised if, under present conditions, one of the most extensive and destructive outbreaks of cholera should occur, regardless of vaccination, unless prompt action is taken to regulate hog traffic effectively, quarantine diseased herds, restrict the distribution and use of virus, and reduce to a minimum the evils of rendering plants and country slaughtering.

ERADICATION

The idea of eradicating cholera is not new. In 1880, Detmers stated that, in his opinion, cholera could be eradicated. Luckey, about 1913, stated he could eradicate it from Missouri for \$20,000. Connaway has contended that cholera is eradicable. That the Bureau of Animal Industry was giving thought to eradica-

tion of cholera is evidenced by the following from Bulletin 834 in 1917:

The end in view in combating hog cholera is the ultimate eradication of the disease, although at present it seems wiser to consider control rather than eradication.

The 1933 report of the A. V. M. A. Special Committee on Agricultural Extension Service contains this statement:

This disease can be eradicated from the whole country, but this can not be done as long as the measures for its control are in the hands of those who are untrained.

The possibility of eradicating a disease is dependent upon the nature of the disease, animals susceptible, source, viability and dissemination of the infection, possibility of carriers, and character of immunity. The control and eradication of hog cholera is of economic significance only; it is not a public health problem.

NATURE OF HOG CHOLERA

Cholera is a specific disease of swine caused by a filtrable virus. Swine only are affected. As far as known, virus is propagated exclusively in swine. Within a few days after a hog is infected, the lacrimal fluid, nasal discharge, urine, feces, and probably milk, contain the filtrable virus. It has been found that the blood of a cholera hog is not extensively charged with virus until six or seven days after infection.

Cholera hogs, resulting from natural or induced infection, eliminate virus. However, permanent carriers have not been identified. The exact length of time that infection might persist on a premise is not known. Experimentally, the virus is of feeble vitality, surviving for only a few days in open pens. In carefully conducted experiments, healthy susceptible swine were maintained within fifty feet of cholera-infected swine without becoming infected, even when cared for by the same attendant. Pigeons permitted to pass from lots containing cholera hogs direct to pens containing healthy, susceptible hogs did not carry sufficient virus to produce cholera.

Regardless of the negative experimental evidence, it is common knowledge that cholera infection is spread. It is reasonable to assume that the infection can be carried from farm to farm by dogs, crows, buzzards and other animals and birds that consume portions of the carcasses of hogs dead of cholera. Is it not also possible that the infection can be carried in streams of water, on boots and shoes, the feet of horses, cattle and other animals and by vehicles?

Pork scraps in uncooked garbage are probably an important

source of the filtrable virus. Although virus under most conditions is not highly resistant, nevertheless sufficient virulence apparently is maintained in infected pork scraps to produce cholera in susceptible swine. McGilvray, in 1912, reported the transmission of cholera by pork scraps. Birch reported the demonstration of filtrable virus in 12 of 22 cured hams.

The importance of pork scraps and garbage as a source of hog cholera infection has been demonstrated definitely in Maryland where, for the five-year period from 1925 to 1931 inclusive, of 2,677 outbreaks, 2,245 (approximately 84 per cent) were due to pork scraps and garbage.

In recent months there has been a marked increase of slaughter of swine on farms and the local marketing of the dressed pork. In some localities permission has been granted for local slaughtering establishments and farmer butchers to obtain hogs at public markets. Some of these slaughter hogs, either from the farm or public market, may have been in the incubation stage of cholera when they were slaughtered, and the pork scraps from them may carry the infection.

Swine that survive an attack of cholera acquire an immunity. Although experimental evidence is not available to substantiate the fact, that immunity apparently is lifelong. Healthy swine of proper age can be immunized provided a sufficient dose of potent serum and virulent virus is properly injected and that the swine so injected are given proper aftercare. The immunity resulting from serum and virus injection is a relative condition, but suffices under ordinary circumstances. In fact, this immunity, in part at least, is transmitted from sows to pigs.

There are some interesting problems relative to immunization of swine and immunity to cholera that are unsolved. For example, will an excessive dose of serum and the regular dose of virus produce the same degree of immunity that will be produced by a regular dose of serum and virus? Is it possible to produce a permanent immunity by the use of serum and virus in suckling pigs from immune sows and in non-immune hogs that had been injected with serum ten days previously? Do hogs that are treated with serum and virus in public stock yards withstand hyperimmunization better than country-vaccinated hogs? If so, why?

DISTRIBUTION OF SWINE

Cholera usually is more prevalent and the losses are relatively greater in those sections in which there is a large number of swine. However, the expense per hog for the administration of

control or eradication measures will be much less than in those areas where hogs are few and far between. In a universal plan of eradication, the areas where there are relatively few hogs must be taken into consideration.

TRANSPORTATION REGULATIONS

Regulation of rail shipments has been accomplished and there are relatively few violations, but an effective plan for the regulation of truck shipments has not been promulgated. The problem of truck regulations can be solved by proper licensing requirements.

COMPETENT VETERINARY SERVICE

In the intensive swine-raising and feeding sections there are sufficient practicing veterinarians to render prompt service. It would be necessary for federal or state-employed veterinarians to take charge of those areas in which no practicing veterinarians are located.

COST

Since cholera is an economic problem, the cost of any control or eradication plan must show a definite balance in favor of the plan. Otherwise, it should not be attempted. The cost of cholera is now borne by the swine-grower and feeder as they pay the present vaccination charges and assume the death losses.

THREE PLANS SUGGESTED

Three plans for cholera eradication are suggested:

1. *Vaccination:* Vaccination apparently has diminished the immediate losses from cholera. Probably not more than 30 per cent of all hogs have been vaccinated in any year. It would be possible to simultaneously vaccinate all hogs in the United States at a cost that would probably not exceed the combined cost of the annual vaccination that is now done and the value of the hogs annually lost from cholera. To vaccinate all hogs would probably be no more difficult than to tuberculin-test all cattle. Even though 100 per cent of swine were vaccinated one year, cholera would not be eradicated because of an occasional death due to vaccination, but it is probable that if all hogs were properly vaccinated with serum and virus for from 5 to 10 successive years, cholera would be almost extinct. Such a program is not feasible at this time because of the public funds that would be required and an insufficient number of veterinarians to do the work.

2. *Quarantine, slaughter and disinfection*: This is the method that was employed in this country in the eradication of pleuropneumonia and has been used on several occasions in eradicating foot-and-mouth disease. A similar plan is now being used in the eradication of tuberculosis. This plan has been employed in the control and eradication of cholera in Canada. The Canadian method briefly is as follows:

If the majority of hogs on a premise are showing symptoms of cholera, they are all slaughtered, their carcasses burned or properly buried, and the premise placed under quarantine. Compensation is paid for hogs ordered to be slaughtered, the maximum amount for registered hogs being \$33.33 and for grades \$10.00. Compensation, however, is not paid until the premise has been cleansed and disinfected to the satisfaction of the officers.

No hogs are permitted to be brought on to the premise for a period of three months after the buildings and equipment including fences are thoroughly cleaned, disinfected and white-washed, small lots scraped and covered with quick lime, and larger lots plowed.

Hogs on surrounding premises, provided the temperatures are normal and no evidence of disease detected, are injected with serum by Dominion officers and placed under quarantine. They are so held for a period of three months and if no disease develops, the premises are released.

On premises on which only a few of the animals are showing symptoms of disease, these animals are slaughtered together with those giving abnormal temperatures. Those with normal temperatures are treated with serum if there is a possibility of fattening them for the block within a period of two months; if not, they are slaughtered with the affected hogs and compensation paid. If they are treated with serum, they are retained in quarantine until the necessary period expires, and if no disease develops, a permit is issued for their removal for slaughter under inspection. The premises are then thoroughly cleansed and disinfected.

Two factors, no doubt, have contributed to the success of this plan in the control of cholera in Canada. First, cholera is relatively rare. A widespread outbreak has never occurred in Canada, as is evidenced by the fact that 99,518 hogs were slaughtered on account of cholera and the Canadian government paid \$231,371.94 indemnity for the years 1904-5 to and including 1931-32, or an average of 3,554 hogs slaughtered annually at an

average annual indemnity cost of \$8,263.28. In 1932, there were 4,639,100 hogs in Canada and, during that year, 32 exposed or cholera-infected hogs were slaughtered and the indemnity cost was \$792.00. Thus, the cost of cholera in Canada in 1932 was approximately \$175.00 per million hogs. In the United States, for the same year, the cost for cholera and vaccination was approximately \$500,000 per million hogs.

Second, the use and distribution of virus have been and still are prohibited in Canada.

Great Britain was not so successful as Canada in the control and eradication of cholera by the quarantine, slaughter and disinfection method, probably because cholera was quite prevalent, and there was a denser hog population in Great Britain, although the use and distribution of virus were prohibited.

Eradication of cholera from the United States, by the slaughter method, could be accomplished, but the expense would be prohibitive because of the innumerable cholera centers at practically all times. It would entail the services of thousands of employes, state and federal, to supervise and administer the quarantine regulations. An additional large number of veterinarians would be required to inspect diseased herds and to supervise the slaughter of cholera herds and the disinfection of cholera-infected premises. There are not enough available veterinarians for such a project. Thus, it would not be wise to undertake the eradication of cholera from the United States by the slaughter plan because of the expense, inability to obtain the services of sufficient qualified veterinarians and, last but not least, the interference with the swine industry.

3. *Vaccination, quarantine and disinfection*: This method is a modified combination of the vaccination and quarantine plans. This plan in part is in force in Pennsylvania and its effectiveness is evidenced by the fact that in 1932 there were only 289 outbreaks of cholera in that state. The principal source of infection in Pennsylvania, according to Dr. T. E. Munce, is hogs from private or public sales and hogs shipped from the Corn Belt.

A modification of this plan is in force in Maryland, where the plan is essentially a sanitary program for preventing the harboring and spread of cholera virus. The use of virus is restricted to qualified veterinarians, who must obtain a specific permit each time that virus is used. The Maryland plan has been employed since 1918, and was inaugurated and developed

by the late Dr. I. K. Atherton. The results of this plan are indicated as follows:

<i>Period</i>	<i>Deaths from cholera (per thousand)</i>
1913-16.....	72
1917-20.....	51
1921-24.....	39
1925-28.....	23
1929-31.....	18

The following are prerequisites of the vaccination, quarantine and disinfection plan:

1. Actual enforcement of the law or a regulation making hog cholera a reportable disease.
2. Authorize or deputize qualified practicing veterinarians as quarantine officers.
3. Quarantine and post every farm on which cholera is found.
4. Regulate the transportation of swine.
5. Prohibit the distribution and use of virus excepting to authorized or deputized veterinarians.

It is possible that it will be found that cholera virus blood may be processed, dried or concentrated, and thereby eliminate some of the present uncertain features and make the product more uniform and dependable. A highly virulent, uniform virus in which the viability is more definitely maintained and the keeping quality enhanced would be an important factor in cholera control and eradication.

The working details of the vaccination, quarantine and disinfection plan are as follows:

Authorized veterinarians should quarantine promptly and post the premise on which cholera is found. The presence of the disease should be reported to the proper official. The veterinarian should vaccinate all hogs that in his judgment will be benefited by vaccination. The owner should be given instructions as to the proper disposal of carcasses, and how to carry out the details of the quarantine.

The veterinarian should be authorized and empowered to make a reinspection of the premises when the disease has run its course and to supervise the cleaning and disinfection of hog-houses and all equipment and the cleaning and burning of all débris from the feed-lots. When possible, infected pastures and fields should be plowed.

If, in the judgment of the veterinarian, herds of adjacent farms may become infected, because of close proximity, possibil-

ity of contamination from running water or for any other reason, they should be vaccinated.

All healthy herds that are vaccinated by the serum-virus method should be quarantined for thirty days. Reinspection should be made at that time and if there have been any deaths from cholera the premises, including the lots, should be cleaned and disinfected under the supervision of the veterinarian.

In addition to the usual routine of the practicing veterinarian, he should be required to report all herds affected with cholera, quarantine and post the premises. The compensation for this duty may be included in the vaccination cost. The expense for supervising the cleaning and disinfection should be paid by the state.

The plan does not require slaughter of diseased herds or universal vaccination. In fact, it does not require any vaccination excepting in diseased herds and not then, if the disease is far advanced and vaccination would probably be of no value. Neither does it prohibit vaccination by the use of serum alone by laymen or the simultaneous vaccination by authorized veterinarians.

It does require quarantine of premises on which cholera is identified, and a supervised cleaning and disinfection of infected premises, whether the disease was the result of natural infection or induced by vaccination. The requirement of supervising the cleaning and disinfection of premises where cholera has been induced by vaccination will result in practitioners using greater care in ascertaining the condition of apparently healthy herds prior to vaccination. It also requires effective regulation of swine transportation.

Two difficulties will be encountered in enforcing this plan:

1. *Restricting the distribution of virus:* The interstate shipment of virus should be under federal regulations and the intrastate shipment under state regulations. Every virus shipment should be reported promptly to federal or state authorities. All shipments of virus should be restricted to authorized veterinarians and they should be required to maintain a complete record of the disposition of all virus received.

2. *Enforcing quarantine measures:* Neither of these difficulties is insurmountable. Difficulties are encountered in enforcing any disease control measure but if such regulations are concise, duly published, and rigidly enforced, the large percentage of hog-owners would cooperate and any objections would be overcome gradually.

The adoption of this plan will not cause any marked or serious interference with the hog-owner, neither will it be expensive

and the principal administering agent, the local practitioner, is always available and is in a position to cooperate with the hog-owner. Although the absolute eradication of cholera can not be expected for years to come, it is our judgment that, if this plan be efficiently applied, within a decade cholera will reach the near-vanishing point.

SUMMARY

1. Cholera has prevailed in the United States for one hundred years.
2. There has been marked progress in hog cholera serum therapy.
3. The cholera sanitary control machinery has apparently ceased to function, excepting in one or two states.
4. The unrestricted distribution and use of virus insure the constant prevalence of cholera.
5. The relative annual loss in the United States incident to cholera has not been reduced.
6. Cholera could be eradicated from the United States by the slaughter plan, but the expense would be prohibitive.
7. Cholera can be controlled and the losses reduced to a minimum by quarantine, vaccination and disinfection, providing efficient sanitary regulations are actually enforced and the vaccination is done properly. To this end, qualified practitioners should be given authority and authorized to act in their communities as sanitary officials.
8. Unless drastic changes in the present methods of cholera control are forthcoming, the losses from cholera will not be diminished and another widespread outbreak may occur.

Housekeeping Hens

A young woman who was brought up in the city reports that one of the most interesting sights she saw while on a motor trip through Iowa was a three-story apartment house for hens. Each hen had a large room and a veranda with a lovely view. The little chickens were playing in the back yard, and it looked to the city visitor as if the mothers were gossiping over the front-porch railing.

***National Dog Week—October 1-7, 1933.
A Pedigreed Dog in Every Home.***

THE BUSINESS SIDE OF OUR PROFESSION*

By J. C. FLYNN, Kansas City, Mo.

I am not presenting this paper with the thought in mind that the veterinarian who has had as much as five years in practice will be benefited by what I have to say, but the ideas advanced may help the recent graduate over some of the rough spots encountered in handling the public in small-animal practice.

There are two prime factors in successful practice. First, to be able to render a reasonably efficient service and, secondly, to know the value of that service.

The lack of either spells doom, but the lack of the latter brings ruin more quickly than the former, because the percentage of natural recoveries from illness or injury far outnumber the spontaneous financial recoveries. In other words, an inefficient doctor but a good financier lasts longer than an efficient doctor and a poor financier. Therefore, as far as the doctor and his dependents are concerned, the business side is more important than the professional side. Many efficient and capable veterinarians fail because they are not good business men, while a quack in the same town may prosper, because he makes up in business acumen that which he lacks in veterinary science. Most quacks are shrewd business men.

The success attained in the conduct of a veterinary practice does not necessarily depend on one's ability to collect a good fee. He must be able to read and understand the individuals with whom he deals—not only his clients but his employees. He must know what to expect when he enters into a contract, either with a client or an employee. We are all guided by certain motives, and individuals differ very little. What the other fellow does is not so far different from what we would do under like circumstances. Therefore, it is not so difficult to understand why the other fellow does what he does under certain circumstances. Therefore, the successful business manager attempts to control or regulate the circumstances rather than the individual. For example, we know that to extend credit freely means to increase the percentage of annual loss. You are powerless to control the client's pay streak, but you can limit his temptation to beat you, by refusing, or limiting, his credit. With employees it is, many times, more easy to study their shortcomings and remove the cause than it is to get the individual to correct the fault. For example, if one employee

*Presented at the seventieth annual meeting of the American Veterinary Medical Association, Chicago, Ill., August 14-18, 1933.

dislikes another and each one is a good employe and you want to keep them, you may be able to arrange the hours of each so they will not be thrown together. This may be easier than trying to get them to get along together.

Perfection in an employe must not be expected and perfection in a client must not be expected. We are all human, and human imperfections must be met and dealt with to the best advantage. Imperfection in your employe is more easily controlled than in your client. You can sever your relations with your employe and replace him, but it is not so simple with the client. He is not so easily replaced; therefore, he enjoys a greater tolerance.

THE NON-PROFESSIONAL EMPLOYE

Let us first take up the employe and consider some of the dangers to the success of one's business. First we will take up the non-professional employe. A properly trained attendant is a valuable asset to a hospital but, if not properly trained, he may do a great deal of damage to one's business. It is difficult to keep your clients from contacting this individual in some manner. If not while on duty, they will see him when off duty. The average client is somewhat suspicious and will not hesitate to attempt to get inside information from the attendant. The attendant in his association with the doctor will pick up a certain amount of knowledge and it is a human trait to want to display superior knowledge. He will attempt to discuss a case with the client and, if not held in check, will, through his meager knowledge, cause trouble between the doctor and his client. The old saying, "A little knowledge is dangerous," holds good in his case.

It is advisable to keep him in ignorance of the drugs used and their actions, and impress on his mind that drugs in the hands of an inexperienced person is somewhat like giving a child a loaded gun. It is well to keep attendants from knowing where you keep your hypnotics or what you use. The temptation is greater for them to attempt to use hypnotics than any other drug. A howling dog and a sleepy attendant constitute the temptation.

It is well to impress on their minds that giving free advice to neighbors and friends helps to reduce the income of the hospital. It is not difficult to get them to understand that a reduced income to the hospital means a reduced wage for them and a chance that their jobs may be sacrificed. Impress on their mind that the only safe advice for them to give out, either on or off duty, is for the client to see the doctor. Teach them that if they must talk they should advise the necessity of professional advice and hospital service.

The office girl or telephone operator is indeed an important unit in practice. She usually is the first contact with the client and, if not properly trained, will unconsciously deprive the employer of a large percentage of income. She meets clients either at the office or by telephone and the reception given in either case has a great deal to do with building up and maintaining a good clientele. She should be taught courtesy and salesmanship, to be of the greatest value to you. The reception-room and office, which is her usual domain, should be spotless, and her personal appearance should be beyond criticism. The first impression on the client must be pleasing or the institution will suffer.

THE ASSISTANT PROBLEM

When the practice grows to where it justifies the employment of one or more doctors, the owner is faced with a few more problems. The more doctors employed, the greater the problem. Many doctors have had practices that justified the employment of one or two assistants, but have gone on working day and night, breaking down their health by over-work rather than face the problems presented when an assistant comes in.

The doctor with a good practice, who takes on an assistant, is in pretty much the same position as the man with a pretty wife who takes in a roomer. Each will be tempted to violate one or more of the ten commandments. The doctor may covet the goods and the roomer may covet the wife. At least you have made the temptation possible. Another difficulty to overcome is the fact that in almost all cases professional jealousy will creep in. In most cases the assistant is a recent graduate and it is difficult for him to understand that the client will be slow to accept his service in preference to the doctor who has been serving him. This he takes as a reflection on himself, whereas, if he stopped to think, such is not the case, as the client knows nothing of his ability, but is simply satisfied with the doctor who has already served him. This is a human trait and we all have it. We want to continue with the one who treats us fairly and gives satisfaction.

If more than one doctor is employed, this is what usually happens: They will become jealous of each other and handicap efficiency by openly showing it, or by secretly carrying tales which tend to upset the even balance of a well-managed practice, and it is difficult to go on, and not take sides in these petty jealousies. This type of jealousy usually shows itself by one doctor intimating that the other is adopting methods or rendering service that sooner or later will bring the institution into disrepute. Inves-

tigation usually proves a large percentage of these complaints groundless.

Another problem the proprietor faces is when his two or more associates conspire against him and seek to keep him in ignorance of things important to his practice. This, I think, is the greatest evil to combat. It places you in the position of overcoming this jealousy and gaining the full confidence of the doctors or searching out the greatest disturber and dismissing him or all of them. Often, however, dismissing one makes the other a good man.

HOW MEET THE PROBLEM?

The practice justifying an assistant must necessarily face the problem of later competition by the assistant. In most cases the assistant is a recent graduate who has had four years of theory, is full of ambition, has no practical experience, and the first year he is quite a liability. By his mistakes, born in inexperience, he will cause the loss of many dollars to the practice. He comes to you with the sole object in view of gaining practical experience. He has not the slightest notion of ever entering into competition. If this is mentioned in your preliminary talk, he will hoot the very idea, and will criticize and condemn the unfair and unethical procedure of stealing a practice. It is easy for him to form this opinion because he has no clients and has not yet had an opportunity to see the advantage he will see later. But let him serve your clients for a year or more, and each day, as he turns the matter over in his mind, he places on the scales of justice, on one side, professional ethics, and on the other, personal gain. As time goes on, the opportunity for personal gain grows and it is more and more difficult to see justice and ethics, and when he feels he has gained enough practical experience and a sufficient following of your clients to stave off starvation, he pulls down the small amount of ethics left on the scale of justice and goes out in active competition. Perhaps we should not criticize him too much, because it is a human trait and we are all human. The question naturally arises how to meet this problem. There is no satisfactory way to meet it. Here are some of the methods employed by a few I have consulted on this line.

One man makes an intern of his assistant, not allowing him to get acquainted with the clients by making calls or meeting them in the office. Another tries to encourage indebtedness, so that the assistant will not be financially able to start practice. Another never keeps one long enough to get well acquainted with clients. Others have them sign contracts not to go into practice within a certain prescribed area or time. This is not legal and

is not binding in most states unless a portion of the compensation received is made compensation for such agreement. In other words, if one party accepts pay to stay out of practice, it is pretty likely to make the contract valid.

In employing an assistant the question arises: Is it better to employ a recent graduate or an experienced man, a single or a married man? Other things being equal, such as personal appearance and personality, the inexperienced, mature, married man is most likely to prove satisfactory. He is more steady, and adopts your ideas and methods better than one who has had experience and formed ideas of his own or has adopted the ideas of others that do not fit in with your own. The married man is less likely to leave or make a change on short notice and is more attentive to business. In making a change he must consider others as well as himself.

There are thousands of minor matters which enter into the conduct of a practice in regard to the problem of assistants, but time permits me to mention only the most important.

COMPENSATION FOR ASSISTANTS

The matter of compensation is part of the business side of our profession, and if we analyze the average individual we find he works better for himself than for anyone else. The average man will tell you he will work just as hard when on a salary as when on commission. If he is honest and really believes he would, he is merely deceived in himself. Men who have been rather ordinary employes when on a salary, have often been made extraordinary by taking them off salary and putting them on commission. Of the three methods of paying employes, *i.e.*, salary, commission or salary and commission, experience teaches that straight commission is the best method, as also it is the fairest method to both the employer and employe. It makes them share alike in prosperity and adversity. So much for employes, both professional and non-professional.

THE CLIENT

Now let us consider the client and the many tricks employed by clients to reduce your just income. First, we must consider that the moment an animal is placed in your care, he is a liability in every sense of the word; although his body is in your possession, the title of ownership remains unchanged. Therefore, in accepting the animal we must not consider him as an asset and should govern ourselves accordingly. It is advisable to make a rule to require the owner to make a sufficient cash deposit to

assure you that he means business and will return for the animal. The easiest time to collect for your service is when the client is in distress. He will part more willingly with his money at this time than he will later. His sympathy for the sick or injured animal will cause him to reach for his purse more quickly while the patient is lying there before him, suffering, than when the animal is delivered back to him safe and sound, or it has been sent to its final resting place.

Here is what happens when you allow a patient to get in on the hundred and one excuses you accept in lieu of cash: The owner, perhaps, tells you he can pay a deposit tomorrow. You fall for this. The next day you call him up and the best you get is an inquiry as to how the case is progressing and another promise to come out sure tomorrow. Tomorrow, he was robbed, was sick, or lost his job, but has money coming Saturday, and will take the animal out and pay the entire bill. Saturday he does not show up and as time goes on the liability increases and your faith decreases. You now have so much in the case you cannot afford to let him have it and you can't afford not to. The longer it stays, the less likelihood of him taking it out and you are confronted with the situation of what to do. If you give him the animal, he will not pay you. You cannot sell it because you do not own it. You cannot give him away for the same reason. You cannot destroy him for the same reason. There is no law which protects you, while the owner is well protected should you cause him the loss of his animal. If you take a chance and dispose of his animal in any manner, he can come in, offer to pay all charges and demand his property, and, to say the least, you are on the defense. It is true that you can sue him and get possession of the animal, but how many animals of this kind are worth the bill and costs? We adopt this rule: If they fail on one or two promises, we take the animal and deliver it to them before the bill gets big. However, we have very little of this, because we have a pretty strict cash deposit rule.

THE TRIANGLE CASE

Another class of cases is what we term the "triangle" cases, in which someone besides the owner enters the case. For example, a good client of yours may have left the dog with a neighbor. The dog gets sick or injured and the neighbor calls you or brings it in. It is not advisable to render service on the strength of the neighbor's statement that he knows the owner will pay. We advise him that if he knows the owner will pay, he can pay the bill and collect it from the owner. We know the owner will

pay the neighbor more readily than he will the doctor, or that the owner will probably pay any bill contracted by himself, but demurs at paying bills contracted without his knowledge or consent. Another example of the triangle is where someone runs over a dog, or someone's dog bites a neighbor's child, or one neighbor's big dog injures another's toy poodle or prize Persian, and in the excitement, and to appease the anger of the injured party, the other fellow promises to do the right thing, which the injured party takes for granted to mean that the spokesman will pay all charges, but which in reality means whatever the spokesman wants it to mean, which in most cases means simply a lot of argument and no pay, and if services are rendered on the strength of such a statement, the result is that the neighbors are mad at each other, and both are mad at the doctor for trying to collect from either of them, so it is advisable to get your fee in advance, while the excitement is on and while service is badly needed.

Another case we deal with is the fellow who has stolen a dog, fears detection, and uses the hospital to hide his guilt, or the fellow who has acquired a dog with the idea that he wants it, and later finds out he cannot keep it, or it may have been given to him by a friend with good intentions but poor judgment, and he finds he must be relieved of the burden. This is how these fellows work the game: They bring the animal to the hospital, pretending they desire some service, which usually is a bath. The dog is to be kept for a few hours while they are shopping, or it is to be boarded a few days. They always give a fake name and address and an excuse for not coming prepared to pay in advance, or, if a deposit is insisted upon, they will make a very small deposit and depart, and you are the unwilling owner of an outcast. This trick is used mostly by transients who find the dog too great a burden to keep with them, and they select the veterinary hospital to get them out of their trouble without expense to them, if possible.

Another class is the professional dead-beat and he works his game in this manner: He usually has a good dog and a good line of conversation. He comes to you, well dressed and looking prosperous, for some minor service, pays for it, and establishes an acquaintance and a certain measure of confidence. He comes back later for service, which amounts to considerable, and by one trick or another gets all the service you will give him, asks permission to take the dog home to show the wife and children how well it looks, and promises to be back with it in the morning and have some special work done or to leave it a week and have

it shipped to him. If you fall for his game, you will never get your bill, for he is worthless and simply quits you and looks for another place to work his game. This individual makes a practice of going from one hospital to another until he has run out of places to go. He has one weakness, however, and that is he nearly always refers to the unsatisfactory service rendered by the last place he dealt with, and if you check up on him at that place you can get his history and spoil his game.

Another fellow who does not increase the income of the practitioner is the one who comes in for a diagnosis and lets you proceed with the examination and diagnosis and then informs you he is not ready to have the dog treated, but will bring it in later. If you let him get away with it, he goes out, gets medicine and treats the dog on your diagnosis. This fellow will nearly always pay if given to understand he cannot get away with this old trick.

Time does not permit me to go into detail and mention many other methods employed by the public to beat the doctor. In this paper I have tried briefly to cover a few of the common difficulties encountered in practice that, if not met and overcome, will seriously handicap, if not entirely destroy, an otherwise successful professional enterprise.

National Dog Week

The aims of National Dog Week, October 1-7, 1933, are those that could well be continued throughout the coming twelve months. The objects of the movement, as set forth by the Executive Committee, are six: (1) A pedigreed dog in every home; (2) better dogs and better care for all of them pedigreed or not pedigreed; (3) to educate dog-owners as to their obligations both to their dogs and to the public generally; (4) to teach kindness and consideration by children and adults towards dogs and animals in general; (5) to emphasize the use of the dog as home protector and faithful companion; (6) to secure fair and just laws for dogs and their owners.

Collie Is Hero

A collie in the home of Rev. E. J. Maupin, of Bluffton, Ind., is being treated with extra kindness these days, since he saved the life of his master. Mr. Maupin was driving his cows across a field when he was attacked by a bull. The collie came to the rescue and distracted the attention of the bull until his master could escape.

ANTIGEN NEPHELOMETER SOLIDIFIED WITH PECTIN*

*By H. R. BAKER, Dover, Delaware
Delaware State Board of Agriculture
and G. L. BAKER, Newark, Delaware
Delaware Agricultural Experiment Station*

In the eradication of pullorum disease and Bang's abortion disease, the uniform technic for conducting the tube agglutination test specifies a diluted antigen with a turbidity of 0.75-1.0 of the nephelometer scale of McFarland.¹

Several objections have been encountered in the use of the barium sulfate suspensions as a density standard.

Samples of antigen prepared and adjusted to a turbidity of 1.0 of the McFarland nephelometer scale by different laboratories have, upon comparison of their appearance, shown a wide degree of variation of the densities. Evidently the turbidity of the McFarland tubes must not always be the same, even when made up according to the directions. This discrepancy may be due to the variation in the purity or brand of the barium chlorid, strength of the sulfuric acid, or age of the barium sulfate suspensions. It has been noticed by several laboratory workers that crystal growth develops in the barium sulfate standards a few weeks after preparation, because the chemical is not in a colloidal form and the fine crystals become larger. This crystal growth of the barium sulfate in the tubes of the McFarland nephelometer makes it very difficult to compare their turbidity with the density of the tubes of the antigen to be standardized.

Because of these objections, and in order to have a standard which is more permanent and more similar in appearance, an antigen nephelometer has been devised by solidifying antigen in a gel with a colorless pectin and sugar.*

A pure white, citrous pectin of 100 grade (1 pound supports 100 pounds of sugar in a jelly) was used as the solidifying agent. A jelly was made up as follows: 100 cc of a 0.5 per cent solution of pectin was measured out into a pan, the pH regulated to 3.00 by the addition of 5 cc of 0.1N tartaric acid, 100 grams of cane sugar was added, and the mix was boiled to 144 grams final weight. This concentrate was poured from the pan

*Presented at the sixth annual conference of Laboratory Workers in Pullorum Disease Control, Dover, Del., May 15-17, 1933. Published with the approval of the State Board of Agriculture and the Director of the Delaware Agricultural Experiment Station.

into a 200-cc beaker to allow the concentrate to clear of air bubbles and then poured into test-tubes commonly employed in agglutination work. The jelly formed in these tubes can be used as checks on the solidifying materials.

Additional jelly mixes were made up as above and poured to a definite volume into beakers containing concentrated antigen, the quantity of antigen being regulated by the density of the comparator-tube desired. As soon as the jelly mix was poured into the beaker containing the antigen, it was stirred rapidly until the antigen-jelly mix was homogeneous. This homogeneous mix was allowed to stand a minute to clear of air bubbles and then was poured into test-tubes. Sets of various turbidity were made up, comparing with freshly prepared McFarland tubes of standards 0.5 to 2.0. The tubes were corked, labeled, and paraffined over the label and cork.

The tubes used were of 10-cc capacity, 10 mm inside diameter and 120 mm long. Uniformity of diameter and clearness of glass are essential.

Several sets of these comparator-tubes have been allowed to remain exposed to variations of temperature and sunlight for a period of nine months. The sunlight has fallen directly on them in the afternoon and the temperature has varied from 22 to 36° C. To all appearances the tubes have remained absolutely unchanged. They remain sterile because of the acidity of the gel and the concentration of the sugar.

In order to be more certain of uniformity, it is suggested that the different laboratories have their nephelometer tubes checked by some designated technician, such as the chairman of the Antigen Committee of the Laboratory Workers in Pullorum Disease Control or the referee on Uniform Technic of the Official Research Workers in Animal Diseases.

REFERENCE

- ¹McFarland, J.: The nephelometer. *Jour. Amer. Med. Assn.*, xlix, p. 1176.

Keeping the Tryst

One of the Chicago newspapers reports the following: Every night promptly at 9:30 o'clock, a man from one of the larger apartment hotels in the city goes down to the corner, where he picks up a black alley cat and takes it up to his apartment. There he gives it a bountiful supper of milk. When the repast is over the cat goes back to its alley. Both the man and the cat keep the appointment regardless of the weather.

AMERICAN VETERINARY MEDICAL ASSOCIATION
Proceedings of the Seventieth Annual Meeting, Chicago,
Ill., August 14 to 18, 1933

MONDAY AFTERNOON, AUGUST 14, 1933

The opening session of the seventieth annual meeting of the American Veterinary Medical Association, held at the Palmer House, Chicago, August 14-18, 1933, convened at two-thirty o'clock, Dr. N. F. Williams, president of the Association, presiding.

PRESIDENT WILLIAMS: The meeting will please come to order. I now declare the seventieth annual meeting of the American Veterinary Medical Association open and in session. In order to conserve your time, the old formula of invocation, addresses of welcome and responses, has been dispensed with. However, we will have some announcements from Dr. J. V. Lacroix, chairman of the Committee on Local Arrangements.

DR. LACROIX: Ladies and Gentlemen: Chicago has welcomed the entire world for several months. We have, therefore, no one to issue a general welcome to you. On behalf of the Committee on Local Arrangements, however, I bid you welcome to the sessions of this meeting, and I hope sincerely that your stay in this city will be enjoyable and most profitable.

PRESIDENT WILLIAMS: Thank you, Dr. Lacroix. We have a representative of President Dawes here in the person of Captain J. W. Gorby, who has a few remarks to make with regard to A Century of Progress Exposition.

CAPTAIN GORBY: Mr. President, Members of the American Veterinary Medical Association, Ladies and Gentlemen: We are delighted to extend to you a greeting in the name of President Dawes and his associate members of the Board of Trustees of this great World's Fair. I am sure that everyone here will receive a real inspiration in visiting A Century of Progress.

There has been nothing in all history that compares with the progress that medical science has made within the past century. This is the first World's Fair in history to open the doors wide to medical science and medical exhibits. Materia medica of all kinds you will find there in the Hall of Science, displayed and exhibited in one unforgettable way. We have had from the beginning the advice and counsel of the ablest minds in America on this subject.

Whether you deal with the past, the present, or the future,

A Century of Progress has for you a message that you can not forget. As you look upon those exhibits, costing hundreds of millions of dollars, you ask yourselves, "Is this the end of America?" Certainly not. The very momentum of our progress will carry us on to greater and greater progress in the future.

You come away from that exposition inspired with the thought that a nation that can put on an exhibit like that for the hundred years that have passed, why, is just getting ready to go; and with that faith and that courage and that spirit you can conquer and solve all your problems. That is the great benefit that that World's Fair conveys to this generation, reminding us of what our fathers and mothers have done, because every exhibit represents a solved problem, a victory gained, a perplexing situation overcome, and we trust that you will take back home with you, every one of you, some of the unconquerable spirit that has made A Century of Progress possible.

I can tell you, my friends, that within my experience of the past two years important men have met me on the street and said, "Gorby, you are deceiving the people. You are talking about this World's Fair when you know it will never happen." I am not talking about habitual pessimists; I am talking about leading business men of Chicago.

Now go over there, and for one fifty-cent piece you can see eighty-five distinct buildings and features and eighty-two miles of exhibit frontage. Please don't try to see all the eighty-two miles the first day. I am a particular friend of your feet. I want to be good friends with your feet at the end of the Fair. Take it easy; look at the special interests you want most to see, and in whatever time you have left see all the rest that you have time to see.

I wish you a most happy time. I wish you great pleasure in visiting the Fair. Take back home with you some of its victorious spirit. I thank you. (Applause.)

PRESIDENT WILLIAMS: That brings us to the President's address. In complying with that section of the Constitution which requires your President to deliver an address upon this occasion, I have chosen to review hastily the history of our profession and that of the live stock industry that we may better estimate our hope of survival.

. . . President Williams then read his address. . . . (Published in the September JOURNAL, pp. 301-317.)

DR. T. E. MUNCE: We have listened with a great deal of interest and edification to the able address of the President, which.

contained several recommendations. I move that it be referred to the Executive Board.

. . . The motion was seconded, put to a vote, and carried. . . .

PRESIDENT WILLIAMS: We are now ready for the presentation and adoption of the minutes of the 1932 meeting. Dr. Hoskins will present them.

SECRETARY HOSKINS: Mr. President and Members: I have here the issues of the JOURNAL in which have been published the proceedings of the 1932 meeting held at Atlanta, and the papers presented at that meeting. I am offering them in this form in lieu of reading them at this time.

PRESIDENT WILLIAMS: What is your pleasure?

DR. KINSLEY: Mr. Chairman, I move you that they be adopted.

. . . The motion was seconded, put to a vote, and carried. . . .

PRESIDENT WILLIAMS: We are now ready for the report of the Secretary-Editor, which report Dr. Hoskins has.

Report of the Secretary-Editor

MR. PRESIDENT AND MEMBERS:

Each year it becomes increasingly difficult for the Secretary to know just what he should incorporate in his annual report, for the reason that the activities of the Association office are increasing, expanding, and ramifying all the time, and it would be absolutely impossible to report on all of those activities.

It has been the policy of the JOURNAL during the past ten years, to keep our membership informed, from month to month, on important matters, and that seems to be much more satisfactory than to wait until the end of each year and then report a lot of things, all at one time, many of which have become more or less out of date.

DEATHS

We have had an unusually heavy loss from death during the past year, not only in mere numbers but in the loss of members who have been very prominent in the activities and affairs of the Association. For the first time, as far as memory recalls, we have been saddened by the death of one of our elective officers. I refer to Vice President W. A. Axby, of Harrison, Ohio, on January 20, 1933.

We have lost, in all, 45 members from the active roll and 31 from the inactive roll, a total which exceeds the loss by death of any previous year.

It may be pointed out that, in this connection, a little statistical study indicates that we may expect, during the next few years, a rather heavier death loss than formerly. A large majority of the members of the Association are approaching an age group when mortality figures tell us that we may expect a heavier loss than we have had heretofore, even with approximately the same membership.

The names of the deceased members follow. Full obituaries have been published in the JOURNAL as the deaths have been reported:

Active Members

Adee, James F., Topeka, Kan.
Axby, William Allen, Harrison, Ohio.
Bell, Ralph M., Riverside, Calif.
Bevan, Arthur L., Frankfort, Ky.
Blackburn, Herbert Lawrence, Forth Worth, Tex.
Bosley, Harry, Washington, D. C.
Broerman, Alvin, Reynoldsburg, Ohio.
Buckley, Samuel S., College Park, Md.
Buffington, Ralph M., Fort Myer, Va.
Caldwell, George R., Augusta, Me.
Crewe, Wilton F., Bismarck, N. Dak.
Decker, E. J., Far Rockaway, N. Y.
Deiling, N. J., Dallas Center, Iowa.
Duncan, W. T., Springfield, Mo.
Eddy, C. W., Cleveland, Ohio.
Everett, A. T., South Omaha, Neb.
Fisher, Robert F., Paducah, Ky.
Gibson, A., Birmingham, Ala.
Gordon, Reuben, Bronx, N. Y.
Graham, LeRoy B., Cedar Rapids, Iowa.
Graham, Percy, Red Springs, N. C.
Harkins, Malcolm J., Conshohocken, Pa.
Henry, Michael F., North Bergen, N. J.
Lambert, Fcnsa Allan, Columbus, Ohio.
LeFevre, Daniel D., Newark, N. J.
Lewman, La'ayette Huey, Big Springs, Neb.
Lichty, J. M., Sioux City, Iowa.
McCarthy, F. H., Pottsville, Pa.
McGavick, James A., Tacoma, Wash.
Mattrocce, Daniel, Los Banos, Calif.
Meyer, John C., Cincinnati, Ohio.
Pickens, Earl Max, College Park, Md.
Playdon, Calvert H., Reading, Mass.
Rey, Charles R., Tulare, Calif.
Stanley, William Morris, Charles Town, W. Va.
Steel, Edward R., Kansas City, Mo.
Schwarze, Herman Richard, East Saint Louis, Ill.
Seger, Claude Leslie, Jackson, Minn.
Tracy, Angus Warner, Sherbrooke, Que.
Turner, William George, Hickman Mills, Mo.
Vliet, George B., Hackettstown, N. J.
Waugh, James Alexander, Pittsburgh, Pa.
Whipple, Frederick Random, Chicago, Ill.
Wood, George Daniel, Springfield, Vt.
Wright, W. Dean, Tacoma, Wash.

Former Members

Bevins, Noel Orsin, Hawkeye, Iowa.
Blomquist, Carl Albert, Milaca, Minn.
Brotheridge, Herbert J., Brooklyn, N. Y.
Brown, Herbert H., Saint Louis, Mo.
Brown, Lyman D., Hamilton, Mo.
Creely, Elwin J., Red Bluff, Calif.
Ellis, Clinton, Dover, Mo.
Goodall, Fred, Gilmore City, Iowa.
Graham, Oswald Hood, Tarboro, N. C.
Grimes, William P., Newark, N. J.

Hanna, Robert Lee, Brookville, Ind.
 Himmelberger, Leo R., Flint, Mich.
 Hinkley, Charles J., Sioux City, Iowa.
 Kelpe, Henry O., Omaha, Neb.
 Kjerner, Rudolph, Chatfield, Minn.
 Langtry, Walter, Houston, Tex.
 Longnecker, Allen O., Hickman, Ky.
 Malone, William Jr., Mount Horeb, Wis.
 Martin, W. J., Kankakee, Ill.
 Martin, Wm. Jacob, Oley, Pa.
 Menestrina, Theodore J., East Saint Louis, Ill.
 Meyst, Frederick W., Washington, D. C.
 Nord, Charles F., South Omaha, Neb.
 Perschbacher, John, Janesville, Wis.
 Powell, Joseph Steven, Fort Worth, Texas.
 Power, Clinton W., Attica, Ind.
 Pyper, Samuel T., Cincinnati, Ohio.
 Ross, Lee F., Aurora, Ind.
 Vasellius, George Gustav Emil, Horseheads, N. Y.
 Watson, Thomas W., Corsicana, Texas.
 Willmot, John, Chickasha, Okla.

MEMBERSHIP

As has been the case with practically every organization during the past year, we have had some shrinkage in our membership. It is not necessary to enumerate the causes for this. They are substantially the same as those that have operated in every business and profession. Comment has already been made on our losses due to death.

Several factors have combined to increase the number of resignations received. Retirement from active service in the U. S. Bureau of Animal Industry has caused a number of our older members to sever their connection with the A. V. M. A. The financial depression has caused a larger number to trim their budgets and quite a large percentage of the resignations filed this year have been for financial reasons. Retirement from active practice, entry into other fields and poor health account for practically all of the others.

The resignations of the following members have been received and accepted by the Executive Board, as of the date indicated in each case:

Alston, J. T., Tupelo, Miss. (Dec. 31, 1932)
 Ashmore, C. D., Los Angeles, Calif. (Dec. 31, 1932)
 Barstow, I. L., Moscow, Idaho. (Mar. 31, 1933)
 Benson, S. O., Houston, Texas. (Dec. 31, 1932)
 Bohaboy, A. W., Prague, Neb. (Dec. 31, 1932)
 Bolton, R. R., Newburgh, N. Y. (Dec. 31, 1932)
 Cecil, Joe D., Waterloo, Iowa. (Dec. 31, 1932)
 Cole, Guy T., Jacksonville, Fla. (Mar. 31, 1933)
 Cooper, Dean G., Cedar Rapids, Iowa. (Mar. 31, 1933)
 Cox, A. B., Rose Hill, Kan. (Dec. 31, 1932)
 Cummings, L. R., Spring Valley, Wis. (Dec. 31, 1932)
 Dell, Harry H., Dubuque, Iowa. (Dec. 31, 1932)
 Dieckman, Fred C., Farmersburg, Iowa. (Dec. 31, 1932)
 Elliot, Thomas A., Genesee, Idaho. (Dec. 31, 1932)
 Erickson, H. E., Milledgeville, Ill. (Dec. 31, 1932)
 Fegley, Nathan K., Emaus, Pa. (Dec. 31, 1932)
 Fernsler, F. U., Lebanon, Pa. (Dec. 31, 1933)
 Fields, S. M., Pomona, Calif. (Dec. 31, 1932)
 Gibson, J. E., Indianapolis, Ind. (Dec. 31, 1932)

Graff, Carl P. L., Bisbee, N. Dak. (Dec. 31, 1932)
 Grefshelm, Thorval, Deerfield, Wis. (Mar. 31, 1933)
 Haven, E. F., Jacksonville, Fla. (Dec. 31, 1932)
 Hedrick, H. A., Baltimore, Md. (June 30, 1933)
 Hermann, John W., Cincinnati, Ohio. (Dec. 31, 1932)
 Kelly, James S., Tacoma, Wash. (Dec. 31, 1932)
 Leeper, Robert B., Golden, Colo. (Dec. 31, 1932)
 McDermont, G. F., Los Angeles, Calif. (Dec. 31, 1932)
 McPhail, J. N., Morocco, Ind. (Dec. 31, 1932)
 Mann, R. I., Coldwater, Mich. (Dec. 31, 1932)
 Merriman, C. M., Mount Pulaski, Ill. (Dec. 31, 1932)
 Moore, H. O., Sheridan, Ind. (Dec. 31, 1932)
 Musser, A. B., Wapakoneta, Ohio. (Dec. 31, 1932)
 Naylor, H. W., Morris, N. Y. (Dec. 31, 1932)
 Neely, Malcolm J., Fort Frances, Ont. (Dec. 31, 1932)
 Orr, A. E., Siloam Springs, Ark. (Dec. 31, 1932)
 Outhier, W. C., Fresno, Calif. (Mar. 31, 1933)
 Pownell, A. H., Los Angeles, Calif. (Dec. 31, 1932)
 Ramsay, R. A., Washington, D. C. (June 30, 1933)
 Reid, J. C., El Paso, Texas. (Dec. 31, 1932)
 Richey, A. N., Lanesboro, Iowa. (Dec. 31, 1932)
 Steen, James, Halifax, N. S. (Dec. 31, 1932)
 Taylor, Rex, San Mateo, Calif. (Dec. 31, 1932)
 Webber, Carr R., Rochester, N. Y. (Dec. 31, 1932)
 Williams, R. C., New Richland, Minn. (Dec. 31, 1932)
 Williams, W. W., Springfield, Mass. (Dec. 31, 1932)
 Younghusband, Alan W., Ottawa, Ont. (Dec. 31, 1932)

The same conditions that prompted quite a few members to tender their resignations operated to keep down the number of new members enrolled during the year. Our resident secretaries were practically unanimous in the opinion that membership campaigns were not in order. Therefore, our efforts were directed toward individual cases,

TABLE I—Distribution of applications, year ended July 31, 1933.

STATES, ETC.	APPLICANTS	STATES, ETC.	APPLICANTS
Illinois.....	13	Colorado.....	1
Ohio.....	8	Florida.....	1
District of Columbia..	4	Hawaii.....	1
New York.....	4	Indiana.....	1
Pennsylvania.....	4	Iowa.....	1
Texas.....	4	Kentucky.....	1
California.....	3	Louisiana.....	1
Maine.....	3	New Jersey.....	1
North Carolina.....	3	Oklahoma.....	1
Washington.....	3	Oregon.....	1
Arizona.....	2	Rhode Island.....	1
Georgia.....	2	Saskatchewan.....	1
Kansas.....	2	Utah.....	1
Massachusetts.....	2	Vermont.....	1
Nebraska.....	2	West Virginia.....	1
Tennessee.....	2	Wisconsin.....	1
Alabama.....	1	Wyoming.....	1
		Total.....	79

mostly by correspondence, with the result that 79 applications were received during the year ended July 31, as shown in table I. Note that these 79 applicants were located in 31 states, the District of Columbia, Hawaii and Canada.

Following the custom of previous years, a table (II) is presented, showing how well the members have paid their dues. Although the table shows approximately a thousand members in arrears, this should not be taken as a discouraging sign. Many of these members have promised to pay up, during the next few months.

On the other hand, the fact that we can show over 75 per cent of our membership fully paid up should be interpreted as a healthy sign, particularly in view of the fact that no extra efforts have been put forth this year to secure the payment of dues.

Table II shows our membership strength, in addition to shedding light on the payment of dues. As compared with a year ago, it shows that we have sustained a loss of approximately 250 members. In spite of this loss, our total membership exceeds by more than 300 the figure for 1928.

Even with the conditions that have existed during the past year, we have Maine, New Hampshire and Wyoming with every member on the roll with his dues paid up to date. Those three states are one hundred per cent. Alaska and Puerto Rico, although with smaller memberships, also are one hundred per cent paid.

COMMITTEE WORK

During the past year, the office has been of more assistance, than at any time in the past, to several of our committees whose work entails considerable letter-writing. All of the facilities of the office have been placed at the disposal of these committees. It is gratifying to report that the committees have taken full advantage of our ability to help in the way of getting out letters, questionnaires, and so forth. Several of the committees would have found it rather difficult to carry on their work during the past year without the assistance that the office was able to give. It is hoped that all committees will feel free to ask for such assistance in carrying on their activities.

MEETINGS ATTENDED

President Williams attended ten veterinary meetings and conferences, in as many different states, during the year. Several other meetings would have been included in the list if the dates had not conflicted with those of other meetings. The Secretary was able to attend only six out-of-town meetings and conferences, fewer than in any recent year. There were several reasons for this, the most important being pressure of work in the office.

Some progress has been made in working out circuits for meetings of state veterinary associations. Present plans are based on eventually having several of these circuits. Tentatively they are:

1. Eastern (N. Y., N. J., Pa., etc.)
2. Central (Ind., Ill., Iowa, etc.)
3. Southern (Miss., Tenn., etc.)
4. Northwestern (Minn., N. D., etc.)
5. Southwestern (Texas, Okla., etc.)
6. Pacific Coast (Calif., Ore., Wash., etc.)

Meetings attended by the President, Dr. N. F. Williams:

Date	Place	Purpose
1932		
Nov. 30	Chicago, Ill.	A. V. M. A. Executive Board
Dec. 1-2	Chicago, Ill.	U. S. Live Stock Sanitary Asso.

TABLE II—*Payment of dues and distribution of membership.*

STATE, ETC.	PAID*	D-1†	D-2‡	D-3§	TOTAL
Alabama.....	25	4	5	0	34
Arizona.....	8	2	2	0	12
Arkansas.....	8	5	5	0	18
California.....	236	48	34	1	319
Colorado.....	32	8	4	0	44
Connecticut.....	37	5	3	0	45
Delaware.....	11	1	0	0	12
District of Columbia.....	47	5	1	0	53
Florida.....	39	4	1	0	44
Georgia.....	28	7	2	0	37
Idaho.....	13	4	2	1	20
Illinois.....	177	32	16	0	225
Indiana.....	106	17	15	0	138
Iowa.....	171	48	40	2	261
Kansas.....	100	17	28	0	145
Kentucky.....	33	6	3	0	42
Louisiana.....	21	6	0	0	27
*Maine.....	13	0	0	0	13
Maryland.....	57	6	4	0	67
Massachusetts.....	75	6	6	0	87
Michigan.....	107	27	26	2	162
Minnesota.....	125	35	16	1	177
Mississippi.....	18	1	0	0	19
Missouri.....	103	17	25	2	147
Montana.....	15	3	2	0	20
Nebraska.....	64	16	11	0	91
Nevada.....	10	2	1	0	13
*New Hampshire.....	10	0	0	0	10
New Jersey.....	70	10	11	1	92
New Mexico.....	10	1	1	0	12
New York.....	213	30	12	0	255
North Carolina.....	19	8	4	0	31
North Dakota.....	29	3	1	0	33
Ohio.....	189	39	23	1	252
Oklahoma.....	37	11	5	0	53
Oregon.....	36	3	3	0	42
Pennsylvania.....	219	28	34	2	283
Rhode Island.....	8	3	0	0	11
South Carolina.....	15	5	0	0	20
South Dakota.....	38	11	6	0	55
Tennessee.....	22	6	3	0	31
Texas.....	103	16	12	1	132
Utah.....	14	4	2	0	20
Vermont.....	17	3	0	0	20
Virginia.....	42	6	4	0	52
Washington.....	40	7	2	1	50
West Virginia.....	19	4	2	0	25
Wisconsin.....	87	20	16	0	123
*Wyoming.....	10	0	0	0	10
*Alaska.....	2	0	0	0	2
Canal Zone.....	5	1	0	0	6
Hawaii.....	16	1	0	0	17
*Puerto Rico.....	3	0	0	0	3
Philippines.....	13	5	1	0	19
Canada.....	94	27	7	0	128
Foreign.....	33	5	6	0	44
Honorary.....					44
Totals.....	3093	589	407	15	4148

*Indicates dues for 1933 are paid.

†Indicates dues for 1933 are unpaid.

‡Indicates dues for 1932 and 1933 are unpaid.

§Indicates dues for 1931, 1932 and 1933 are unpaid.

TABLE IIa—Recapitulation.

	PAID	D-1	D-2	D-3	TOTALS
District 1.....	94	27	7	0	128
District 2.....	300	39	45	3	387
District 3.....	370	69	47	0	486
District 4.....	378	66	31	0	474
District 5.....	296	83	56	3	438
District 6.....	323	66	45	1	435
District 7.....	276	53	28	2	359
District 8.....	372	72	75	3	522
District 9.....	373	47	21	0	441
District 10.....	296	66	49	3	414
Foreign.....	15	2	3	0	20
Honorary.....					44
Totals.....	3093	589	407	15	4148

Date	Place	Purpose
1933		
Jan. 9-10	Oklahoma, Okla.	Oklahoma Vet. Med. Asso.
Jan. 11-12	Columbus, Ohio	Ohio State Vet. Med. Asso.
Jan. 13	Ithaca, N. Y.	Cornell Conference
Jan. 16	Trenton, N. J.	Vet. Med. Asso. of New Jersey
Jan. 17-18	Indianapolis, Ind.	Indiana Vet. Med. Asso.
Jan. 19	Wichita, Kan.	Kansas Vet. Med. Asso.
Jan. 27-28	Jackson, Miss.	Mississippi State Vet. Med. Asso.
Mar. 1-2	Baton Rouge, La.	Louisiana State Short Course
June 19-21	Fort Worth, Tex.	State Vet. Med. Asso. of Texas
July 18-19	Saint Louis, Mo.	Missouri Vet. Med. Asso.

Meetings attended by the Secretary:

1932		
Aug. 21-27	Atlanta, Ga.	American Vet. Med. Asso.
Sept. 14	Champaign, Ill.	Swine Erysipelas Conference
Oct. 10-11	Cedar Rapids, Ia.	Eastern Iowa Vet. Med. Asso.
Oct. 25-26	Champaign, Ill.	Univ. of Ill. Vet. Conference
Nov. 16-17	LaFayette, Ind.	Purdue Univ. Vet. Conference
Dec. 1-2	Chicago, Ill.	U. S. Live Stock Sanitary Asso.
1933		
Feb. 15-16	Springfield, Ill.	Illinois State Vet. Med. Asso.
Apr. 30	Bloomington, Ill.	McLean County Vet. Med. Asso.

CORRESPONDENCE

The correspondence which the office has been called upon to handle during the past year has been unusually heavy. There have been times when it was absolutely impossible to answer all letters promptly. It has been quite noticeable that the number of communications received from non-veterinary sources has been increasing appreciably right along. Reference is made to letters from persons who are not veterinarians and from organizations not veterinary in character.

The office of the American Veterinary Medical Association is the logical place for many people to seek information of one kind or another, and most of our members would undoubtedly be very much surprised if they could see the great variety of communications that are received

from all parts of the world from time to time. Many of the letters require hours of the time of someone for getting together the information necessary for replying to these letters. No small part of this correspondence has been with prospective veterinary students who write in to ask for information concerning the veterinary profession and veterinary colleges. Most of these letters come directly from the persons interested, although quite a few letters are referred to us by other institutions and organizations.

The time required to handle this extraneous correspondence is considerable. To a large extent it might be considered a non-productive activity. In other words, this correspondence does not bring us in new members, nor does it bring in any revenue for the JOURNAL except in occasional instances. On the other hand, much of the time and effort put into handling this correspondence should be of considerable indirect benefit to the Association and to the profession as time goes on. If there were no place for the writers of these communications to get the information that they want, there can be little question but that the veterinary profession would be the loser in the end.

Space will be taken in this connection to give just two illustrations of jobs that our correspondence has brought up during the past year. In each case the job resulted from one letter received at the office. Several months ago the Treasury Department in Washington, found out that the Government did not have any reliable information concerning the legitimate consumption of narcotics by veterinarians in the United States. The Government neither had the information nor knew how to go about getting it. They came to us for help. A plan was suggested and accepted. It is just about ready to be put into operation.

Two years ago the A. V. M. A. Committee on Education presented a very comprehensive report on veterinary education in the United States. The report has attracted a great deal of attention. Several months ago a letter was received from the Department of Commerce, in Washington, asking for information concerning the income of 417 veterinary practitioners for certain years. In the report of the Committee on Education referred to, there was a table summarizing the income of 417 veterinarians, distributed in eleven states, for the year 1928. Someone in Washington was sufficiently interested in veterinarians to want to know how those same 417 veterinarians fared during the several years that have passed since the figures were compiled. We have promised to assist in securing the information.

JOURNAL

It should be encouraging to learn that, even though the JOURNAL went into the red about \$500 last year, we are in the black again this year to the extent of about \$1,200. The costs of printing and paper, two very important items, were down considerably during the past year. The probabilities are that the bottom has been reached and that prices will rise from now on. Just how much is the important question. We have sufficient paper stock in hand to last us until the end of the year. We probably will have to enter the paper market about December 1. In the meantime price trends will be watched very carefully.

FINANCIAL REPORT—JOURNAL

July 1, 1932—June 30, 1933

Income

Advertising, subscriptions, reprints* and binders.....	\$10,639.40
Association dues (60 per cent to JOURNAL).....	10,131.08
Total	\$20,770.48

<i>Expenses</i>	
Rent	\$ 900.00
Salaries	5,220.00
Printing and paper stock	9,141.63
Envelopes	209.50
Postage	841.72
Half-tones, etchings, etc.	673.90
Abstracts	175.00
Reprints*	1,588.12
Office Equipment	121.80
Sundry expenses	326.52
Moving	350.00
Total	\$19,548.19
Gain for period	\$ 1,222.29

Table III contains an analysis of the twelve issues of the JOURNAL published for the year 1932. The number of papers published during the period established a record—124. Likewise the number of obituaries—122. Otherwise, there is little comment to make other than to say that the biggest problem that the JOURNAL has to face is that of publishing all of the material which is offered to us for publication. Those of you who have looked over the program for the meeting have noted the fact that there are 54 papers listed for presentation before the six sections. In addition there are three papers listed for the symposium on Bang's disease and one at each of three general sessions, making a total of 60 papers that the JOURNAL will be obliged to publish just as soon as possible after this meeting. That is the largest number of papers that has been presented at any meeting up to the present time.

TABLE III—*Journal contents, 1927-1932.*

	1927	1928	1929	1930	1931	1932
Editorials	46	33	33	34	49	64
Papers	93	89	123	119	83	124
Case reports	33	35	39	52	51	40
State board examinations announced	5	7	3	9	9	8
Meeting dates announced	188	200	192	204	235	233
Meetings reported	94	96	90	84	84	70
Book reviews	20	6	4	12	5	8
Abstracts	20	6	22	154	149	138
Commencements reported	14	13	12	13	12	13
Obituary notices	89	99	107	92	114	122
Personal items	562	523	449	413	543	442
Miscellaneous items	317	90	112	168	129	124
Communications	12	16	1	3	3	3
Publications received	117	96	99	195	106	150
Army veterinary service announcements	12	19	17	19	15	13
A. V. M. A. proceedings (pages) ..	140	160	116	99	176	129
U. S. L. S. S. A. proceedings pages	264	284	286	193	194	243
Illustrations	237	218	223	222	245	169

*Amounts offset each other, as reprints are supplied to authors at actual cost.

slightly exceeding the number presented at the Atlanta meeting one year ago.

The best proof of how difficult it is to handle all this material is to be found in the fact that we have not yet been able to complete the publication of the papers which were presented at the meeting in Atlanta one year ago. We hope to wind up the publication of these papers in the September issue of the JOURNAL.

Anticipating the large number of papers which would be presented at this meeting, we have declined to accept about eighty per cent of the material that has been offered to us for publication during the past five months, for no other reason in the world than that we did not want to make commitments for more space than there would be available in the JOURNAL during the next few months. As a result of this policy we are now in a healthier condition than at any time during recent years insofar as our ability to go ahead and publish promptly the papers that you will hear at this meeting during the next three days is concerned.

ACKNOWLEDGMENTS

The past year has been marked by unusual happenings, many of which have affected the work of the office and the activities of the organization. However, there has been no lessening of the coöperation that has characterized the efforts of our officers and committees in performing their official duties. The Association has not been able to engage in a number of activities that rightfully are those of the organization, for the reason that there is not sufficient income at the present time to finance these projects in the way they should be carried on.

During the coming year the A. V. M. A. office will be the scene of activities in connection with the Twelfth International Veterinary Congress, preliminary plans for which are already well under way. Further, we anticipate a great deal of extra correspondence in connection with the organization of the A. V. M. A. House of Representatives, which will function for the first time at New York, next year.

Respectfully submitted

H. PRESTON HOSKINS, *Secretary-Editor*.

PRESIDENT WILLIAMS: You have heard the Secretary-Editor's report. What is your pleasure?

DR. KINSLEY: I move you that the Secretary-Editor's report be received and referred to the Executive Board.

. . . The motion was duly seconded, voted upon and carried.
. . .

PRESIDENT WILLIAMS: Now we come to the financial statement of the Treasurer. If Dr. Jacob is ready, we will have his report.

DR. M. JACOB: The financial statement which I have to submit covers the six-month period from January 1, 1933, to June 30, 1933.

. . . Treasurer Jacob then gave a summary of the financial condition of the Association. . . .

Financial Report

JANUARY 1, 1933, TO JUNE 30, 1933

Cash balances, December 31, 1932 (banks).....	\$ 1,887.94
Revolving fund in hands of Dr. Hoskins.....	500.00
Total	\$ 2,387.94
Add back: Check not cashed when bank closed.....	50.00
Receipts during period:	
Received from the Secretary.....	\$21,782.38
Interest on bonds.....	871.18
	<u>\$22,653.56</u>
	\$25,091.50
Expenditures during period.....	14,855.01
Total cash resources.....	\$10,236.49
U. S. Government Bonds (\$41,000.00 par) at cost.....	41,259.02
Total assets, June 30, 1933.....	\$51,495.51
Total assets, December 31, 1932.....	43,646.96
Increase in assets for the period.....	<u>\$ 7,848.65</u>

DISTRIBUTION OF ASSETS

Fund	Cash	Funds in Closed Bank	Bonds (Cost)	Totals
A. V. M. A.....	\$ 2,808.17	\$ 418.00	\$ 5,821.94	\$ 9,048.11
Journal	6,095.30	915.02	35,437.08	42,447.40
	<u>\$ 8,903.47</u>	<u>\$ 1,333.02</u>	<u>\$41,259.02</u>	<u>\$51,495.51</u>

SALMON MEMORIAL FUND

Balance, December 31, 1932.....	\$ 6,365.53
Receipts:	
Interest on time deposits.....	\$ 1.28
Interest on U. S. Liberty Bonds.....	10.62
Interest on Fidelity Trust Co. Bonds.....	151.25
Interest on U. S. Treasury Bonds.....	116.87
	<u>280.02</u>
	\$ 6,645.55
Disbursements:	
Accrued interest on bonds purchased.....	\$ 61.68
Commission and handling charges.....	6.67
Sam Elder.....	200.00
	<u>268.35</u>
Balance, June 30, 1933.....	\$ 6,377.20
Invested as follows:	
U. S. Government Bonds (par \$6,000).....	\$6,209.69
Continental Illinois National Bank & Trust Co..	127.49
East Tennessee National Bank (closed).....	240.02
	<u>\$6,577.20</u>
Less loan from A. V. M. A. fund.....	200.00
	<u>\$ 6,377.20</u>

Respectfully submitted,

M. JACOB, Treasurer.

DR. N. S. MAYO: In making the motion to refer the Treasurer's report to the Executive Board, it might be of interest to the members to know that twenty years ago, in 1913, when I became secretary of the Association, I don't know whether Dr. Marshall can tell how many dollars he turned over to me at that time, but I know that I had to collect the dues for the coming year in advance, in order to get money to publish the proceedings of the Association; so you can see what a change has come about in twenty years.

. . . The motion was duly seconded, voted upon and carried.

DR. E. A. CAHILL: I was attempting to analyze our net worth, but I did not hear any liabilities read.

PRESIDENT WILLIAMS: There are no liabilities.

. . . Announcements. . .

SECRETARY HOSKINS: I have a cablegram from the secretary of the Australian Veterinary Association conveying greetings and good wishes to the American Veterinary Medical Association for a successful convention. It is from Sydney, Australia.

DR. MAYO: I move that the President be authorized to acknowledge the receipt of the cable of greetings from the Australian Veterinary Association and to extend the best wishes of this Association in return.

. . . The motion was duly seconded, voted upon and carried.

Nomination of Officers

PRESIDENT WILLIAMS: The next order of business is the nomination of officers. I believe it would be wise to read that part of Article 8 of the By-laws concerned with nominations.

. . . President Williams read Sections 1 and 2 of Article 8.

PRESIDENT WILLIAMS: We are now ready to receive nominations for the office of president.

DR. T. H. FERGUSON: I would like to place in nomination, for the presidency of this Association, Dr. C. P. Fitch, without taking up any two minutes.

DR. E. L. QUITMAN: I take great pleasure in placing in nomination a man who is all around fitted for the office of president of this great organization, a man well known to the profession, who always has been active in his community, active in state association work, and active in A. V. M. A. work, a man who is eminently fitted by his experience. He has had fifteen years with the Bureau of Animal Husbandry; six years, I believe, in

hog-cholera work and the remainder of the time, nine years, in meat-inspection work.

He has shown himself to be a great organizer; he will have the time and the ability to give to the full function of the office of president of the A. V. M. A.

This man is not only that; it is now a time when the practitioner needs a friend. This man, by his previous work, has always shown himself to be a friend of the practitioner. I know him and know that we have profited by the work he has done for the practitioner here in the state of Illinois. I take great pleasure in nominating Dr. J. S. Koen, of Saint Louis, for the office of president.

DR. W. A. HAGAN: I rise to second the nomination of Dr. C. P. Fitch for president of this society. In doing this I have several reasons. I believe, in the first place, that Dr. Fitch has proven to be a friend of the practitioners of the Middle West, as he was of the practitioners of the East. I believe, secondly, that this is an especially important year to have the society represented by a spokesman who can speak for the men of this country and for the Twelfth International Veterinary Congress which this society will sponsor next year in New York City.

Dr. Fitch has been active in this Association for many years. He has been a member of the Executive Board and a member of many of the committees. He has been active on the scientific programs. I think he is as eligible as any member I can now recall for this high honor, and I believe, furthermore, that he will well represent, before the veterinarians of the world, the ideals for which this organization stands.

It will be a source of pleasure for me to vote for Dr. Fitch, and I hope that many of you will feel likewise. (Applause.)

DR. ASHE LOCKHART: The veterinarians in Missouri, during the past two years, have had a splendid illustration of what actual, real, fighting leadership means. Under the leadership of Dr. Koen, of Missouri, the veterinary profession has received a recognition that it has never previously received. Missouri veterinarians are anxious to enlist under the banner of a leader who has fought for the rights of practitioners against the encroachment of other agencies on the veterinary profession.

Therefore, as representing the Missouri Veterinary Medical Association, it gives me a great deal of pleasure to second the nomination of Dr. Koen for president. (Applause.)

DR. W. G. HOLLINGWORTH: I believe, and I fear no contradiction, that I know Dr. Fitch probably better than any other man

in this room. Philosophy teaches us the reason why—because I have known him from the day of his birth. I have known the family. I have known his mother—the dear soul; today she is sitting in heaven. I would, at any time, render whatever assistance I could in regard to enhancing his future; hence, I am going to do my part.

Today I had the opportunity of having a talk with Dr. Fitch and I asked him a pointed question with regard to a phase of veterinary medicine in which I am very much interested, and I told him I wanted his candid opinion, that it was necessary that I should know how to vote. He pledged me his word and honor that he would do everything within the power of his command, if he were elected, to carry out the ideals of a phase of veterinary medicine which has been recognized by all schools but has been very much neglected in the past. So, with that, I am very glad to second his nomination.

DR. J. H. MILLS: I also wish to second the nomination of Dr. Koen. Dr. Koen is not a local man; he is national in character.

A couple of years ago I had the pleasure of serving on a committee with Dr. Koen. I found him to be earnest and sincere in all of his work and dealings toward the veterinarians. The biggest problem today that confronts us is the preservation of the local veterinarian, and I am sure that Dr. Koen has the local man's interest in his heart.

Another one of our big problems is placing veterinarians in charge of health work. In the last two years, Dr. Koen has been able to place fifteen veterinarians in meat and milk inspection. I, therefore, second the nomination of Dr. Koen. (Applause.)

DR. FRANK HECKER: I want to second the nomination of Dr. Koen.

COL. R. J. FOSTER: As an Army veterinarian and interested in all sides of the veterinary profession, it gives me great pleasure to second the nomination of Dr. C. P. Fitch. It goes without saying that as a scientist, a worker in the field of state sanitary medicine, a research worker, an educator, a civic man, Dr. Fitch is one of the outstanding men of the nation at the present time. I, therefore, commend Dr. Fitch to the members of this Association for the presidency during the next year, when we need a man who is not only nationally known but a man of international reputation, who has worked for the profession for the last twenty-five years.

DR. R. L. WEST: I am a practicing veterinarian of Minnesota, Dr. Fitch's home state. I am sure that the other Minnesota practitioners are one hundred per cent behind me in what I have to

say. We have heard Dr. Fitch's qualifications told and we agree with everything that has been said, but, further than that, I wish to say, on behalf of the Minnesota practitioners, that Dr. Fitch has stood one hundred per cent behind the practitioners ever since he has been connected with the University of Minnesota and the Minnesota State Live Stock Sanitary Board.

More than that, he has been for fifteen or sixteen years the secretary-treasurer of the Minnesota State Veterinary Medical Society. During these troublous times, when many associations are fighting to keep up their membership and hold their heads above water, the Minnesota State Society stands on its own feet, stronger, if anything, than it has been at any time in its history.

I heartily second Dr. Fitch's nomination.

PRESIDENT WILLIAMS: Are there any more nominations?

DR. MAYO: Mr. President, I move that the nominations for president be closed.

. . . The motion was duly seconded, voted upon and carried.

. . .
PRESIDENT WILLIAMS: You have two candidates in nomination, Dr. Fitch, of Minnesota, and Dr. Koen, of Missouri.

If you are familiar with the method of election, you will know that it will be necessary to resort to the ballot-box. Election of officers is provided for in Section 1 of Article 9.

. . . President Williams read the section. . . .

PRESIDENT WILLIAMS: With that information we will pass to the nomination of vice-presidents. We have five vice-presidents to be elected. We are now ready for nominations.

DR. E. B. ACKERMAN: The gentleman whose name I wish to place in nomination is a man whom I have known for a period of forty years. He is a fellow-alumnus from my college. He is a man who has served in all the associations to which I belong, a man who has been president of our State Association and a man who is interested in the education of the veterinary student. He has taken an active part in anything that was of interest to the colleges, and he is a man who deserves recognition by this Association.

I would, therefore, like to present the name of Dr. W. G. Hollingworth, of Utica, New York.

DR. MAYO: I would like to nominate a vice-president as representing the Veterinary Corps of the U. S. Army, Major H. E. Van Tuyl.

DR. A. E. BEHNKE: I wish to place in nomination the name of Dr. W. E. Cotton, of Bethesda, Maryland.

DR. C. M. HARDING: It seems to me that the geographical distribution of the nominees for vice-president would justify a representative from the Pacific Coast. Therefore, I would like to nominate Dr. J. M. Arburua, of San Francisco, one of the past presidents of our State Association.

DR. W. H. IVENS: Mr. President, I would like to nominate Dr. George A. Dick, of the Veterinary School of the University of Pennsylvania.

DR. F. H. SAUNDERS: According to geographical distribution, I think it would be only fair to recognize some of the islands in the middle of the ocean. We have with us Dr. Lloyd C. Moss, of Honolulu, Hawaii. I place him in nomination.

DR. J. C. FLYNN: I rise to place in nomination the name of a young man in our organization—not so young, but he has been a member for possibly only a few years. He has been an active member, and this Association needs young, active members.

I would like to place in nomination the name of Dr. S. W. Haigler, of Saint Louis.

DR. ACKERMAN: I move that the nominations be closed.

. . . The motion was duly seconded, voted upon and carried.

PRESIDENT WILLIAMS: On account of the number of men who have been nominated, this item is referred to the ballot-box. We are going to have a real election here.

We are now ready to receive and entertain nominations for the office of treasurer.

DR. MAYO: I really can't see any reason for changing the office of treasurer. I think that our present Treasurer has given excellent satisfaction in that office and I nominate Dr. M. Jacob.

DR. FERGUSON: I move that the nominations be closed and that the Secretary be instructed to cast the unanimous ballot for Dr. Jacob.

PRESIDENT WILLIAMS: Things are moving rapidly. Dr. Mayo nominated Dr. Jacob and everybody seconded him, and Dr. Ferguson now moves that the nominations be closed and Dr. Jacob be elected by acclamation.

. . . The motion was voted upon and carried. . .

SECRETARY HOSKINS: Mr. President and Members: In accordance with your instructions, I hereby cast the unanimous ballot of the Association for Dr. M. Jacob, of Knoxville, Tennessee, for treasurer of the American Veterinary Medical Association for the year beginning January 1, 1934.

PRESIDENT WILLIAMS: With this ceremonial we have reelected Dr. Jacob.

SECRETARY HOSKINS: Just a word about the election. We have made arrangements to have printed ballots for your use tomorrow, and when the polls are opened in the morning, at nine o'clock, in the Exhibition Hall, we hope to have the facilities in smooth running order to hold the election without undue loss of time of any of the members who desire to vote.

Article V of the Constitution imposes certain restrictions upon nominees for elective offices of the A. V. M. A., and it will be necessary for us to check all of the nominees to see that they conform to the requirements set forth in Section 1 of Article V. I know of nothing at this time that will interfere with any of these names going on the ballot, but I am simply mentioning at this time that there is such a provision in the Constitution.

The polls will be open all day tomorrow, from nine in the morning until six in the evening. Only members who are in good standing, only those who have paid their dues in full for the year 1933, will be eligible to vote and, of course, each member is entitled to only one vote.

When you receive your ballot it will show the names of the nominees for president and there will be very plain instructions to vote for one. On the lower half of the ballot you will find the names of the nominees for the offices of five vice-presidents, and you will note there instructions to vote for five—not more than five. Anybody who votes for more than five candidates for vice-president invalidates his ballot.

The result of the election for vice-presidents will determine the seniority of the five vice-presidents; in other words, if there should be no tie for any position, the nominee receiving the largest number of votes will be declared elected First Vice-President; the candidate receiving the second highest number of votes will be declared elected Second Vice-President; the third highest, Third Vice-President; the fourth highest, Fourth Vice-President; and the fifth highest, Fifth Vice-President.

DR. SAUNDERS: I take it for granted that all of these people are here at the present time, but, being a careful customer, I should not like to be buying a pig in a sack. Having come from quite a distance, speaking for myself, I would rather like to look them over. How would it be if some of the candidates would rise? It may change our opinion.

PRESIDENT WILLIAMS: If that is the sense of this meeting, that policy will be adopted. However, it has never been adopted or practiced heretofore.

DR. SAUNDERS: That is the way we do it out West. I would like to make a motion to that effect, that before the election they at least arise and let us see their countenances.

DR. MAYO: Most of them are more or less politicians. They will be steered around. You will get a chance to see them all right.

. . . The motion was seconded, voted upon and lost. . . .

PRESIDENT WILLIAMS: That ends today's program. We will reconvene in this hall in the morning at nine o'clock.

. . . The session adjourned at 4:40 p. m.

RECESS

TUESDAY MORNING, AUGUST 15, 1933

The second general session was called to order by President Williams at 9:40 a. m.

The program was a symposium on Bang's disease, and the following papers were given:

"Some Studies on Bang's Disease," Drs. B. T. Simms and F. M. Bolin. (Read by Dr. Simms.)

"A Bang's Disease Survey of a Representative Dairy Township," Dr. R. R. Birch.

"A Practical Interpretation of the Scientific Evidence on Controversial Points in the Control of Bang's Disease," Drs. C. P. Fitch and C. R. Donham. (Read by Dr. Fitch.)

PRESIDENT WILLIAMS: We will proceed with the report of the Special Committee on Bang's Disease, to be presented by Dr. M. F. Barnes.

DR. BARNES: Your Committee regrets very much the death of Dr. W. A. Axby, who was a member of this Committee for three years. His death was announced yesterday by our Secretary, and, as a substitute for Dr. Axby, our President, Dr. Williams, wisely selected Dr. C. H. Case. Aside from Dr. Case, this Committee, during the three years past, has had the same personnel. We are glad to say this year that we are in a position where we can present a unanimous report.

. . . Dr. Barnes read the report. . . .

Report of the Special Committee on Bang's Disease

MR. PRESIDENT AND MEMBERS:

Your Committee this year can report encouraging results. In consideration of the fact that the different industries of the country, including the live stock industry, have been going through a period of reverses, your Committee can report progress for the reason that the

interest of the public in Bang's disease elimination has continued, and, undoubtedly, has increased to some extent.

Live stock sanitary officials should continue to impress upon veterinarians and live stock owners the facts concerning the economic importance of Bang's disease and should not be negligent in distributing available knowledge as to the manner in which it is spread and the best known sanitary precautions for preventing the establishment of new centers of infection. They should not fail to impress the fact that the cow that aborts because of *Brucella abortus* is one of the greatest spreaders of Bang's disease, and, that each abortion which is prevented, either through reducing exposure to the disease or through taking advantage of any measures which will increase resistance, is a step in the direction of control.

During the year there has been little change in the number of states having a plan of Bang's disease control or the number of states having interstate regulations, and, since data covering this subject are available in last year's report, it is needless to repeat them at this time.

The work which has been carried forward in the different states for the elimination of Bang's disease, under a definite plan involving the use of the agglutination test, the elimination of reactors, sanitation and prevention, has continued to grow. When the principles involved have been executed properly this plan usually has been successful in the elimination of the disease. Veterinarians should realize that the procedure followed must be somewhat modified to suit conditions existing in individual herds. In extensively infected herds, the building of a new herd from the offspring is a good course to pursue.

VACCINES

Because of the persistence and confidence of one member (Dr. Cotton) of this Committee that experiments in the use of vaccine prepared from cultures of low virulence, especially in calves, have yielded and have continued to yield encouraging results under experimental conditions, your Committee at this time is willing to recommend that such a vaccine, having the endorsement of the United States Bureau of Animal Industry, be given a limited field trial, under immediate federal or state official supervision, in some badly infected and properly selected herds, or, in some infected and properly selected herds where owners are not willing to apply the elimination or segregation method. All of these experiments are to be conducted under the following special conditions.

(1) That only vaccines prepared and furnished by the United States Bureau of Animal Industry be used, or that vaccines used shall be prepared from such strains of *Brucella abortus* as are furnished by the United States Bureau of Animal Industry under instructions furnished by it.

(2) That all experiments be properly controlled with a number of controls in all classes as to age, blood reactions, etc., equal to the number of vaccinated animals in each group.

(3) That all experiments be conducted under immediate and official federal or state supervision.

(4) That accurate records be kept and furnished to future A.V.M.A. committees on Bang's disease.

Vaccines in the control of Bang's disease are still considered in the experimental stage, but, since some encouraging results have been obtained under experimental conditions, continued experimentation might eventually prove that a proper vaccine, properly controlled, has its place in a Bang's disease control program—especially if it is proved beyond doubt that such a vaccine will build resistance and will not become a source of danger to human health. Any vaccine or product

that can be used with safety and that will cause animals to resist infection with virulent strains of *Brucella abortus* will become of value in the control of Bang's disease among range cattle, and will be useful to breeders who own cattle of valuable blood-lines and who are not equipped or feel they cannot afford to provide isolation quarters.

REGULATIONS AND RESEARCH

Some members of the Committee are of the opinion that the federal government should take a more active part towards bringing about uniform interstate Bang's disease regulations, but the present difficulties in this direction are appreciated. It is suggested that the states now having regulations requiring a blood test for entry of animals attempt to unify their regulations.

Results of recent researches indicate that the skin and possibly the eye may be channels of *Brucella abortus* infection more often than has been generally believed.

Researches within the year have given results which undoubtedly have aided in a better understanding of the possibilities and limitations of the agglutination test and a better interpretation of the results.

Your Committee recommends the continuance of a constructive research program on Bang's disease from every standpoint.

(Signed) M. F. BARNES, *Chairman*.

(Signed) W. WISNICKY.

(Signed) W. E. COTTON.

(Signed) C. H. CASE.

(Signed) B. J. KILLHAM.

DR. BARNES: Mr. Chairman, I move that this report be adopted and referred to the Executive Board.

. . . The motion was duly seconded, voted upon and carried.

PRESIDENT WILLIAMS: This audience, this morning, by their careful attention to the various essayists, has evidenced the seriousness of the veterinary profession at a time when clear thinking is necessary and is conspicuous by its absence. It is unfortunate that the general public was not privileged to look in upon this session this morning, because I am sure that the prestige of this profession would have been highly enhanced.

. . . Announcements. . .

PRESIDENT WILLIAMS: I will entertain a motion at this time that we recess until two o'clock.

DR. KINSLEY: I so move.

. . . The motion was seconded, voted upon and carried, and the meeting recessed at 11:10 a. m.

RECESS

TUESDAY AFTERNOON, AUGUST 15, 1933

The third general session was called to order by President Williams at 2:20 p. m.

PRESIDENT WILLIAMS: The first report is that of the A. V. M. A. Representative on the Advisory Board of the Horse Association of America, Dr. T. A. Sigler, Greencastle, Ind.

. . . Dr. Sigler read his report. . . .

Report of the A. V. M. A. Representative on the Advisory Board of the Horse Association of America

MR. PRESIDENT AND MEMBERS:

At no time since the affiliation of the A.V.M.A. with the Horse Association of America has there been such a keen interest taken in the horse by the veterinary profession and allied interests.

This Association has done signal service, at a time when the horse was on the wane. The organizers of this Association had a keen sense of duty toward their good friend the horse. While all other interests were organized, the horse business was floundering. This body of men grouped themselves together for the benefit of those who needed the use of horses and for those who had that inborn love for horses and derived pleasure in maintaining good saddle and race horses. So you see the purpose of the Horse Association of America—to aid and encourage the breeding and raising of horses and mules.

No work is undertaken by the Horse Association unless the members feel they will accomplish something worth while. Work which will increase the use of horses is advocated, such as plowing contests and pulling contests. Much literature has been mailed out by the Association along the line of horse production.

Plowing contests were encouraged and given financial support. Five county contests were held in Missouri; two district contests in Illinois, and state-wide contests in Indiana and Michigan. Exceptionally good teams of horses and mules, well harnessed and properly hitched, took part in these multi-hitch plowing matches. Thousands of farmers attended, when the gross total is considered.

Widespread publicity follows these matches, as they make news of interest to farm readers of newspapers. News articles telling of the contests, and of the ease with which these larger teams are handled, are read by hundreds of thousands of farmers, encouraging them to try similar methods.

In addition, knowledge of feeds and pasture has been stressed by the Association, also the elimination of parasites in horses, through veterinary work, on a wide scale. This is practical, increasing the rate of growth of colts and reducing the amount of feed required per hundred pounds of gain. It improves the thrift and strength of mature work animals, and adds so much to the comfort of all horses—young or old—that we recommend to all horsemen strong support of such campaign against horse parasites.

Wide publicity has been given to all foregoing facts through numerous news articles which have been written and published, and through addresses made by our Secretary and by various members of our Association.

All of the foregoing has helped the veterinarian, especially the general practitioner and the man in the rural districts. The past two seasons horse practice has been good in the Corn Belt states, making over old horses and operating upon the old. Many of the horses now on the farms are out of their teens. They have lived their allotted time and it becomes necessary that we encourage breeding for replacement.

Farmers throughout the Corn Belt, especially in sections where good horses were raised in past years, have awakened this year and breeding has been heavy. Good stallions, traveled, probably have averaged over one hundred mares per horse; many covered as many as 150 mares this season. For the first time in years, mares are selling at a premium over geldings on our markets. Breeding is on the upgrade with a vengeance, but production can not come quickly enough to avoid a shortage during the next four seasons.

The horse is the only animal on the farm that has increased in price during the depression and the only commodity on the farm that is selling at an advanced price. The lack of funds among the farmers is the only reason why good farm horses are not selling higher at the present time than ever before in the history of our country. This is due to the shortage of good horses and mules and the increase in horse use in the past two years. The fact that the horse is the only thing on the farm that has held up in price, while other commodities have gone down to half or less of the 1932 level, is conclusive corroborative evidence of what has just been said.

Such shortage, with higher prices, is going to give many farmers a more wholesome regard for horses and mules and will teach them a lesson they will not soon forget, namely, that any sensible farmer on a diversified farm should make it an inflexible rule to raise enough replacements to permit selling his older horses at five to eight years of age.

The farmer has learned that idle machinery, with its original high cost and the high cost of maintenance, does not pay. It is taking the old horse to pull him out of the depression.

On the other hand, the pleasure horse has presented a different problem, due to the loss of great fortunes by some, and failure of dividends relied on by wealthy families. These conditions have brought about the closing out and sales of many estates, from sheer necessity, for whatever they would bring on the market, on account of the lack of the usual buying power. Present conditions have reduced prices on this class of horses and brought serious losses to the saddle and race-horse men. It's an ill wind that blows nobody good, however. Lower prices on riding horses and lower cost of maintenance have brought a good many persons into riding who could not afford it heretofore. But this class of breeding will come back, as financial conditions adjust themselves. And those who are in fair circumstances and own good studs, will profit by holding fast to an established business.

So thanks to the Horse Association of America, for its untiring efforts in keeping the horse before the public eye and selling his use to the general public.

Respectfully submitted,

(Signed) T. A. SIGLER

PRESIDENT WILLIAMS: You have heard the report of your representative to the Horse Association of America. What is your pleasure?

DR. MAYO: I move that the report be received and referred to the Executive Board.

. . . The motion was duly seconded, voted upon and carried.

PRESIDENT WILLIAMS: The next report is that of the Special Committee on Affiliation of State and Provincial Associations

with the A. V. M. A., which will be presented by the Chairman, Dr. T. E. Munce. This report represents the finish of a very arduous task and a duty well performed.

. . . . Dr. Munce read the report. . . .

Report of the Special Committee on Affiliation of State and Provincial Associations with the A. V. M. A.

MR. PRESIDENT AND MEMBERS:

The Special Committee appointed by the Executive Board on Affiliation of State and Provincial Associations with the A. V. M. A. submits their final report. This report supplements the report made at the 1931 meeting of the A. V. M. A., held at Kansas City, and recorded on page 506 of the October, 1931, issue of the JOURNAL, and the report presented at the 1932 meeting of the A. V. M. A., held at Atlanta, and recorded on page 481 of the October, 1932, issue of the JOURNAL.

The following state veterinary medical associations have voted, in the order named, to affiliate with the A. V. M. A. in accordance with the plan submitted, of which the attached is a copy, and is a part of this report:

Nebraska	Texas	Montana
Connecticut	Kentucky	Delaware
Minnesota	North Carolina	Georgia
New Jersey	Virginia	Maine
South Carolina	Utah	Maryland
Louisiana	Colorado	Massachusetts
California	North Dakota	Ohio
Kansas	Florida	Wisconsin
Pennsylvania	Missouri	Tennessee
Oklahoma	New York	Nevada
Illinois	Oregon	Washington
Michigan	Vermont	

Thirty-five state associations have voted to ratify the plan of affiliation adopted by the A. V. M. A., which is five more than the number (thirty associations) specified by the A. V. M. A. to complete the proposition of affiliation with state and provincial associations. Furthermore, amendments to the Constitution and By-laws of the A. V. M. A. were introduced at the 1932 meeting of the A. V. M. A. and are recorded on pages 483 and 484 of the October, 1932, issue of the JOURNAL and these, if adopted at this meeting, will provide the machinery necessary to put the proposition into force and effect at the close of this meeting.

Your Special Committee recommends that favorable consideration be given at this meeting to the above mentioned amendments to the Constitution and By-laws of the A. V. M. A., and that any other necessary steps be taken at this meeting to enable the A. V. M. A. and state and provincial associations to operate under the plan of affiliation, the same to become effective at the close of the 1933 meeting of the A. V. M. A.

We further recommend that the Special Committee on Affiliation be discharged.

Respectfully submitted,
T. E. MUNCE, *Chairman*
C. P. FITCH
H. W. JAKEMAN
GEORGE HILTON
WM. MOORE

W. L. CURTIS
C. J. SCOTT
M. E. GLEASON
C. H. FAUKS

DR. MUNCE: In order to get the proposition before the Association, I move that this report be adopted.

. . . The motion was duly seconded, voted upon and carried.

PRESIDENT WILLIAMS: I will now call for the report of the Executive Board, which will be rendered by Dr. Hoskins.

SECRETARY HOSKINS: This report of the Executive Board will be limited to recommendations for the adoption of several proposed amendments to the Constitution and By-laws, some of which have to do with the plan of affiliation which has just been finally approved, and some of which are not related to that question. Those relating immediately to the plan of affiliation will be presented to you first.

You should understand that these amendments are being made to the Constitution and By-laws as enabling amendments, so that the proposed plan of affiliation may be operative and that we may be able to put it into effect at the close of this meeting, as you have just voted.

. . . Secretary Hoskins read the amendments to Article V of the Constitution, as recommended by the Executive Board. . . .

Report of the Executive Board

MR. PRESIDENT AND MEMBERS:

The Executive Board recommends that Article V of the Constitution be amended by adding the following sections under the head, "House of Representatives":

Section 11. There shall be a House of Representatives, consisting of one representative for each of the various state, territorial and provincial veterinary medical associations. Each representative shall be chosen or appointed at an annual meeting of his association. Each representative so elected or appointed must be a member of the A. V. M. A. in good standing and must be a resident of the state, territory or province he represents. Each representative shall be certified immediately by the secretary of his association to the Secretary of the A. V. M. A. The House of Representatives shall elect annually from its own members, a chairman to preside over all meetings of the House.

Section 12. All business of the Association, including the receiving of and acting upon recommendations of the Executive Board, shall be transacted by the House of Representatives. The House of Representatives shall exercise all of the duties and assume all of the powers now delegated to the active members of the Association by the Constitution and By-laws, except the election of the President, Vice-Presidents, Treasurer and members of the Executive Board.

Section 13. Each representative shall be entitled to votes in the House of Representatives on the following basis:

50 or less members in the A. V. M. A.....	1 vote
51 to 150 members in the A. V. M. A.....	2 votes
151 to 300 members in the A. V. M. A.....	3 votes
301 to 450 members in the A. V. M. A.....	4 votes
451 or more members in the A. V. M. A.....	5 votes

Membership rating in the A. V. M. A. shall be based upon the records of the office of the Secretary of said Association and shall be reckoned on the basis of members of the A. V. M. A. in good standing on the first day of the month in which the meeting of the House of Representatives is to be held. Votes shall be cast by each representative in person and no votes may be by proxy.

Section 14. An alternate may be elected or appointed to represent any association, in the event of the inability of the duly elected or appointed representative to attend meetings of the House of Representatives. However, any alternate so elected or appointed must be a member of the A. V. M. A. in good standing and must be a resident of the state, territory or province he represents. States, territories or provinces having no association shall not be entitled to representation in the House of Representatives.

Section 15. Each state, territorial and provincial association shall choose biennially one representative to the A. V. M. A. who shall serve for two years, or until his successor is elected or appointed and qualified. The term of office of each representative shall date from the first day of the month following his election or appointment. The following states, territories and provinces shall choose their representatives in each even-numbered year:

Alabama	Mississippi	Virginia
Arkansas	Montana	West Virginia
Colorado	Nevada	Wyoming
Delaware	New Jersey	Canal Zone
Florida	New York	Philippine Islands
Idaho	North Dakota	Alberta
Indiana	Oklahoma	Manitoba
Kansas	Pennsylvania	Nova Scotia
Louisiana	South Carolina	Prince Edward Island
Maryland	Tennessee	Saskatchewan
Michigan	Utah	

The term of office of the first representatives from the following states, territories and provinces shall expire January 1, 1935. Thereafter these states, territories and provinces shall choose their representatives in each odd-numbered year:

Arizona	Missouri	Washington
California	Nebraska	Wisconsin
Connecticut	New Hampshire	Alaska
District of Columbia	New Mexico	Hawaii
Georgia	North Carolina	Porto Rico
Illinois	Ohio	British Columbia
Iowa	Oregon	New Brunswick
Kentucky	Rhode Island	Ontario
Maine	South Dakota	Quebec
Massachusetts	Texas	
Minnesota	Vermont	

Section 16. The annual meeting of the House of Representatives shall be held at the time and place of the annual meeting of the Association. Special meetings of the House of Representatives may be held in conjunction with special meetings of the Association.

Section 17. A quorum of the House of Representatives shall consist of sixty per cent of the members of the House of Representatives registered at the meeting.

Section 18. All provisions of the Constitution and By-laws inconsistent with the foregoing amendments are hereby amended to comply with the intent hereof.

SECRETARY HOSKINS: That completes the first recommendation of the Executive Board.

PRESIDENT WILLIAMS: Gentlemen, this matter has been placed before you. These are amendments to your Constitution. We would like an expression from the floor as to how you desire to handle these amendments—whether we will consider them *in toto* or act on them separately. The Committee has given a great deal of thought and put in a great deal of work on this matter; the Executive Board has labored long and faithfully and to the best of its ability. It has placed these amendments in such shape that they are believed to be feasible and practical. That will facilitate the operation of the plan of the Committee.

This is your meeting. We want to handle these amendments to your satisfaction, and, of course, in the interest of conserving your time.

DR. C. A. CARY: Mr. Chairman, in view of the fact that the Executive Board has had this matter under consideration for several years and has discussed it, corrected it, changed it, and made it harmonious, I move that we adopt it as a whole as read.

DR. IVENS: I second the motion.

DR. MAYO: In one article it states that where there is no representative present, as I understand it, one shall be elected or appointed. Who elects or appoints that one?

SECRETARY HOSKINS: In the event of a duly elected representative being unable to attend a meeting of the House of Representatives, the proper officer or officers or body of his state, territorial, or provincial association, as the case may be, may provide for the appointment of an alternate who will serve instead of the regular representative.

DR. MUNCE: The question arose with your Committee as to whether representatives should be elected or appointed. Certain states indicated that they would like to elect their representatives; other states seemed to feel that they would like to authorize the President to appoint them. That is the reason it is divided.

DR. MAYO: If that is the intent, that is satisfactory, but from the reading I was not certain who was to do the appointing. It is the state association.

DR. E. E. WEGNER: I understood the representative appointed would not take office until the first day of the month following his appointment. In the case of an emergency appointment, he might be appointed too late to act at the meeting.

PRESIDENT WILLIAMS: He would probably have to be appointed at home and then get on to the meeting.

DR. WEGNER: But if he were not given authority until the first day of the month, the emergency appointment would not help in that situation.

PRESIDENT WILLIAMS: That is taken care of. Immediately following his appointment, he is authorized to act for his association under this amendment.

DR. KINSLEY: I should like to hear the reading of that part concerning the first of the month following his appointment.

. . . Secretary Hoskins again read Section 15. . . .

SECRETARY HOSKINS: It is assumed that the term of the alternate would be exactly the same as the term of the representative for whom the alternate serves.

DR. KINSLEY: Then, in some of the states that have not yet adopted this proposition, if they should have a meeting, for example, on the tenth of August or the fifth of August, it would be too late, and they would be without representation.

PRESIDENT WILLIAMS: It is my understanding that any action that is taken by a state association would be taken in the state concerned and not at an A. V. M. A. meeting. The association would send its delegate, either a regular delegate or an alternate.

. . . The motion was voted upon and unanimously carried.

. . . Secretary Hoskins then read the second recommendation of the Executive Board. . . .

The Executive Board recommends that Article 16 of the By-laws be amended by adding the following section to provide for an honor roll:

Section 2. The Association shall maintain an Honor Roll consisting of those who have been active members for a period of fifty years. They shall thereafter continue to share all the rights and privileges of active members without the further payment of dues.

SECRETARY HOSKINS: By way of explanation, I may say that this amendment is being recommended to the Association for adoption upon the advice and counsel of the Association's attorney, who made a very careful study of the old paragraph N and after his study advised the Board that the paragraph could be made much more effective and safe from a legal standpoint by making the changes suggested, so it is merely a rewording of paragraph N, to define more clearly just how complaints filed with the Board should be handled.

DR. MAYO: I move that the amendment be adopted.

. . . The motion was duly seconded, voted upon and unanimously carried. . . .

. . . Secretary Hoskins then read the third recommendation of the Executive Board. . . .

The Executive Board recommends that paragraph N of Section 7 of Article V of the Constitution be amended by deleting the word "all" in line 2 thereof, and by inserting the words "by a member in good standing" after the word "writing" in line 3 thereof; by substituting the word "member" in lieu of the word "defendant" in line 7 thereof; by substituting the word "disclosures" in lieu of the words "public report" in lines 11 and 12 thereof, and by substituting the words "investigation and consideration" in lieu of the word "trial" in line 14 thereof. Paragraph N, according to the proposed amendment, will then read as follows:

N—The Executive Board shall be vested with power to hear complaints filed before it in writing by a member in good standing relative to the improper conduct of any member, and shall, if thought advisable, summon the member so charged to appear before it to answer the charges and make defense. If the Board find the member guilty as charged, said Executive Board shall report to the Association a summary of the charges and evidence submitted on both sides, together with such recommendations as may be deemed wise; but no disclosures of such charges or evidence shall be made by the Board or any member thereof until after investigation and consideration by the Executive Board.

PRESIDENT WILLIAMS: You have heard this amendment, gentlemen, which in effect is an addition to Article 16 of the By-laws. Its aim is to honor those who have been members of the Association for fifty years. What is your pleasure?

DR. KINSLEY: I move the adoption of the recommendation.

. . . The motion was duly seconded, voted upon and unanimously carried. . . .

PRESIDENT WILLIAMS: We will hear the report of the A. V. M. A. Representative to the American Association for the Advancement of Science, Dr. Ward Giltner, East Lansing Mich.

. . . Dr. Giltner read his report. . . .

Report of the A. V. M. A. Representative to the American Association for the Advancement of Science

MR. PRESIDENT AND MEMBERS:

During the past year, the American Association for the Advancement of Science has held two meetings, one at Atlantic City, N. J., December 27-31, 1932, the ninety-first meeting of the Association, and the other at Chicago, Ill., June 19-30, 1933. At the December meeting, Dr. Charles R. Stockard, of the Cornell University Medical School, was elected Chairman of Section N, Medical Sciences, and Dr. W. M. Simpson, of Miami Valley Hospital, Dayton, Ohio, Secretary. The latter is a deep student of tularemia and brucellosis. There were no features of special interest to the veterinarian on the program of this meeting, except that B. C. G. was discussed as it was also at the Chicago meeting.

Your representative has performed the routine duties of the office and has been watchful for all matters of interest to your Association.

Respectfully,

(Signed) WARD GILTNER

DR. MAYO: Mr. President, I move that the report be received and referred to the Executive Board.

DR. KINSLEY: I second the motion.

. . . The motion was voted upon and carried. . . .

PRESIDENT WILLIAMS: We will pass on to the next item on the program, a paper, "What About Veterinary Education?" by Dr. C. H. Stange, of Iowa State College. Dr. Stange is here, prepared to read his paper.

. . . Dr. Stange read his paper . . . (To be published in the JOURNAL.)

PRESIDENT WILLIAMS: We have been favored with a very excellent paper. This paper, when published in the JOURNAL, will furnish you with some very valuable statistics and some food for serious thought. Dr. Stange has gathered and correlated some splendid information in this paper that he has so ably presented.

We will now call for the report of the Committee on Education, which will be presented by the Chairman, Dr. N. S. Mayo.

. . . Dr. Mayo read the report. . . .

Report of the Committee on Education

MR. PRESIDENT AND MEMBERS:

During the past year, the Committee has made plans and prepared for the classification of veterinary colleges during the coming year, as authorized by this Association.

Outlines of plans for grading veterinary colleges were submitted to the deans of all veterinary colleges and their criticisms and suggestions invited.

A request was made of the dean of each college that the Committee be advised of any changes made in the teaching staff during the year. If any changes had been made, information was to be furnished regarding each new member, his college and date of graduation and any special training or preparation for teaching. Information regarding changes made in the course of study and any material addition to the veterinary plant or equipment was also requested.

Two veterinary colleges have been visited by the chairman of the Committee without expense to the Association.

The Division of Veterinary Medicine of the Georgia State College of Agriculture has been discontinued.

Your Committee recommends that the following veterinary colleges be continued on the approved list of this Association:

Alabama Polytechnic Institute, College of Veterinary Medicine.
Colorado Agricultural College, Division of Veterinary Medicine.
Iowa State College, Division of Veterinary Medicine.
Kansas State College, Division of Veterinary Medicine.
Michigan State College, Division of Veterinary Medicine.

New York State Veterinary College, at Cornell University.
 Ohio State University, College of Veterinary Medicine.
 L'Institut Agricola d'Oka, l'École de Médecine Vétérinaire.
 Ontario Veterinary College, University of Toronto.
 University of Pennsylvania, School of Veterinary Medicine.
 Texas Agricultural and Mechanical College, School of Veterinary Medicine.
 State College of Washington, College of Veterinary Medicine.

Respectfully submitted,

(Signed) N. S. MAYO, *Chairman*

(Signed) C. D. MCGILVRAY

(Signed) R. R. BIRCH

REUBEN HILTY

H. F. LIENHARDT

DR. KINSLEY: I move that the report be received and referred to the Executive Board.

. . . The motion was duly seconded, voted upon and carried. . . .

. . . . Announcements. . . .

SECRETARY HOSKINS: I have a wire from Dr. William Herbert Lowe:

Your kind letter much appreciated. I extend to you and through you to the Association my best wishes for a most successful meeting. It has been my privilege to witness a half century of veterinary progress. I believe with the same spirit the next fifty years will bring greater achievements.

I was advised of the very serious illness of Dr. Lowe, just a few days before this meeting, so I wrote him a little letter and sent him a copy of the program, and that is his message to the Association.

I have a wire from Dr. George Hilton, Veterinary Director-General of Canada, bringing the information that Dr. Watson, Chief Pathologist for the Health of Animals Branch, is seriously ill. Dr. Watson is Chairman of our Section on Research and his illness will interfere with his attendance at this meeting.

I might take occasion to mention also that another one of our former presidents, Dr. Reuben Hilty, of Toledo, Ohio, has been very seriously ill this summer. His name appears on the program for a paper scheduled for the Section on Military Medicine, but the illness of Dr. Hilty during recent weeks has interfered with the preparation of his paper and his attendance at this meeting. He is now up in the Province of Ontario, up in the Georgian Bay district, trying to get back his former good health.

PRESIDENT WILLIAMS: The various sections will convene tomorrow morning and the business session will reconvene here tomorrow afternoon at two-thirty.

The Chair wishes to express appreciation of the splendid attention and the effort that was made by the members to facilitate the operation of this business meeting this afternoon. It is certainly encouraging and it is an assurance that this Association is being supported by an element that will be able to carry it through its present difficulties.

DR. FERGUSON: I move that we recess, to reconvene in Section meetings tomorrow morning at nine o'clock.

. . . The motion was duly seconded, voted upon and carried, and the session adjourned at 3:50 p. m.

RECESS

WEDNESDAY AFTERNOON, AUGUST 16, 1933

The fourth general session was called to order at two-fifty o'clock, by President Williams.

PRESIDENT WILLIAMS: If you will refer to your program, you will at the top of page 4 find the report of the Committee on Legislation. That report was not ready for presentation yesterday. We are now ready to hear that report. Dr. Hoskins will read it.

. . . Secretary Hoskins read the report. . . .

Report of the Committee on Legislation

MR. PRESIDENT AND MEMBERS:

Your Committee reports that its only activity during the past year was in actively opposing the amendment to the Army Appropriation Bill known as the Taber amendment, which would have been a great injustice to several army veterinarians, inasmuch as it would have materially reduced their pay.

Your Committee desires to thank a large number of its members who promptly rallied to their support by wiring to many Congressmen and Senators to oppose this amendment. Our thanks are due especially to Dr. W. H. Kelly, of Albany, New York, and his colleagues who gave us much assistance where it was greatly needed.

Respectfully submitted,

(Signed) J. P. TURNER, *Chairman*
CASSIUS WAY
R. A. KELSEY
C. A. CARY
E. A. CROSSMAN

PRESIDENT WILLIAMS: You have heard the report of the Committee on Legislation. What is your pleasure?

DR. KINSLEY: I move you that it be accepted and referred to the Executive Committee.

. . . The motion was duly seconded, voted upon and carried. . . .

PRESIDENT WILLIAMS: There is no report of the Executive Committee at this time. You will hear the report of the Election Committee. Dr. Hoskins will present that report.

Report of the Election Committee

SECRETARY HOSKINS: I am making this report in behalf of the Election Committee, of which Dr. M. E. Gleason is Chairman.

For President you have elected Dr. C. P. Fitch, of Minnesota.

For First Vice-President you have elected Dr. W. E. Cotton, of Bethesda, Md.

For Second Vice-President you have elected Dr. G. A. Dick, of Philadelphia, Pa.

For Third Vice-President you have elected Dr. W. G. Hollingworth, of Utica, N. Y.

For Fourth Vice-President you have elected Dr. S. W. Haigler, of Saint Louis, Mo.

For Fifth Vice-President you have elected Major H. E. Van Tuyl, of the U. S. Army.

The certificate of election is signed by eight members of the Election Committee and the Secretary.

Dr. J. S. KOEN: I would like to move the election of Dr. Fitch, by unanimous vote, for president of this Association for the ensuing year.

. . . The motion was severally seconded, voted upon and unanimously carried. . . .

PRESIDENT WILLIAMS: We are fortunate in having an especially competent set of officers. We are fortunate again in having a most harmonious condition in this Association. This was a contest in which those who were vanquished readily and heartily congratulated the victors. At the ballot-box yesterday you expressed your preference for the men who should lead you for another year. Those who were considered felt honored in being considered; none of them feels at all slighted because he was not chosen on that particular occasion. You had an especially fine field from which to select, and the special conditions that were to be met in the future probably influenced your vote.

The next subject on the program is a paper, "Veterinary Medicine in the United States Prior to 1850," by Dr. Joseph M. Arburua, of San Francisco, Calif.

. . . Dr. Arburua presented his paper. . . . (Applause.) (To be published in the JOURNAL.)

PRESIDENT WILLIAMS: Dr. Arburua has just delivered a splendid address. Unfortunately, he was limited as to time. How-

ever, I am satisfied that, when that article appears in the JOURNAL, you will find it very valuable and inspired.

We call for the report of the Special Committee on Meat Hygiene, by Dr. W. G. Hollingworth, of Utica, N. Y.

. . . Dr. Hollingworth read his report. . . .

Report of the Special Committee on Food Hygiene

MR. PRESIDENT AND MEMBERS:

Chicago is naturally the ideal city in which to hold the annual meeting of the American Veterinary Medical Association for 1933. By so doing, many of us are able to kill two birds with one stone. First, to attend our meetings, and, second, to visit A Century of Progress. At this exposition we will be able to see the wonderful progress that this great city as well as civilization has made during the last century, all of which can be expressed in two words, Science and Education. To many of us the Hall of Science will be not only attractive but also educative, due to the fact that here medicine will show what progress has been made, along with other closely allied sciences.

The great achievements of medicine during that period could be divided into two groups: curative and preventive. Today there is hardly a malady known for which science has not developed a remedy, either to cure or to alleviate the suffering. Naturally more progress is going to be made, which will add to its fame. But with all the advancement in the field of curative medicine, it cannot compare with what has been accomplished in the realm of preventive medicine, and what is in store to further its progress. Every person who is able to render service, especially in preventive medicine—and by so doing render aid to his fellow man—should engage himself in the advancement of this science.

We hope that the "New Deal," which just now is very popular, will enter our ranks, and if it does the result certainly will be encouraging. Someone has said:

"A man's knowledge of his surroundings and of himself is as old as the race. He has been conscious of it since thought began. Only by changes in methods has our search changed, in all the ages that have passed. By imparting such knowledge to others have we been able to extend the longevity of life to its present state, and in all probability will exceed the same in the course of time, due to the fact that our reasoning powers have been highly developed and to the fact that those who are peculiarly fitted have become associated with what is known as research work."

We must remember that God made the country, but the people made the towns, and whatever progress has been made is due to the individuals.

Our veterinary colleges are going to rearrange their curricula and doctors of this type will be graduated, resulting in their being equal to the occasion. The force of public opinion, which governs America, demands this. We have been sleeping, and as a profession we must arouse from this state of inactivity. I say, with no fear of contradiction, that in the past we have neglected to practice everlasting watchfulness in the field of food hygiene. It is never too late to mend. Was it not Voltaire who said that he wanted to practice what he preached and speak what he thought was right? That is an excellent slogan.

From the knowledge acquired and the experience gained enforcing the ideals of food hygiene, of which meat, milk, and their products

form the major part, your Committee is impressed with the possibilities that await the veterinary profession, to say nothing of the great health benefit to be derived by the public. Due to the fact that food hygiene is too complex for the untrained to meddle with in perfect safety, the qualified veterinarian is the logical person to have charge of this important phase of preventive medicine.

Inasmuch as the consumers of meats are unable to make an efficient inspection so that the common need shall be met and the necessary protection provided, it is the duty of the states and municipalities to create laws providing for skilled inspection. The measure of success of any government, whether it be federal, state or municipal, is the extent to which it cares for those in its charge. Inspection also has an economic value. Efficient meat inspection is not only an advantage to man but it is the means of detecting and preventing diseases of live stock at the source, especially those which may be transmissible to man.

To some extent our profession has neglected this, one of its most important duties. We should like an explanation, especially in view of the following: (a) the great achievements of our Bureau of Animal Industry, (b) the standing and reputation attained in meat hygiene, and (c) the efficient methods of meat inspection adopted in some municipalities. What is being accomplished in some municipalities can be accomplished in others.

We must remember we are not here for ourselves alone, but for others. Our veterinary colleges and qualified veterinarians owe the common people a duty. To live up to the ideals of our profession it is our duty to see that the public consumes only wholesome and nutritious food. Today people know more about the food they consume than their forefathers did, and they want to know more. The result is that they are hygiene-conscious and are demanding clean, fresh, wholesome foodstuffs. What has happened? It has brought about a condition whereby some cities and a very few states have enacted ordinances and laws creating sanitary reforms eminently necessary. The result—pure food laws. The general movement to obtain a reasonable, decent and safe food supply includes meat and milk regulations, inspection, and surveillance over markets, provision shops and places where food is handled, prepared, dispensed, served and cared for. The approval of the public has been secured and must be maintained.

Our profession might be asked the following question: Are we using all the tools at our disposal and are we satisfied to let humanity drift as it is today, knowing that we are in a position to render service in food hygiene which would mean so much to public health?

At the Portland meeting of the A. V. M. A., in 1925, the Executive Board renamed the Section on Sanitary Science and Police by substituting "Food Hygiene" for "Police." That was an innovation and a step in the right direction. What developed? As far as can be seen, the different yearly programs have failed to enhance food hygiene to the fullest extent. The responsibility lies at the doorstep of someone.

We must remember we are living in a different age—an age of progress. Time changes everything; it is the foundation upon which we can build our future, if we so desire. The success attained is up to those who are interested; success is always a personal matter.

Voltaire once said that time consigns to oblivion whatever is unworthy of being transmitted to posterity and immortalizes the truly great. There are men who spend their time in idleness and then find fault with the world and their vocation. Then there are others who devote their time to useful purposes, thereby rendering service to their fellow men. Such persons are classed as our useful citizens. Professor Orth said that he "cannot concur how a person can be classed

as a useful citizen who does not honestly and diligently pursue his calling, who does not lovingly and affectionately care for his family, and who does not closely attend to his civic duty."

Some in our profession are striving to aid public health by practicing preventive medicine, which is defined as that branch of biology which seeks to reduce or eradicate disease by removing or altering the responsible etiological factors. Included within its scope are two subjects which are often confused, hygiene and sanitation. Hygiene is the proper care of the body to permit normal functioning of the various organs and tissues, while sanitation is the proper cleanliness of the equipment. We believe that if food hygiene and the noted achievement of veterinarians are given their rightful place in our educational institutions, public health will be greatly enhanced.

We must fight for what we want, and then fight for what we get. Such being the case, we must be equal to the occasion, and if the outcome be adverse we must place the responsibility where it belongs.

In the realm of medicine there is no division of greater importance than that of disease prevention. It is quite generally admitted that too little attention has been paid to the prevention of disease in the curricula of our educational institutions, especially that phase known as food hygiene. Why do we say food hygiene? Food is the world's greatest problem; the quality, quantity and variety hold a very important place in preventive medicine. The vigor and success of the common people depend upon the food consumed, which amounted to 132 million tons, in 1932, in the United States. Two-thirds of that amount is derived from animal origin, from which most infection is derived. Is it not reasonable to assume that a portion of the same may be unwholesome and consumed by innocent people?

It is known further that 8,000,000 people are taken seriously ill daily in this country. It would be interesting to know just what proportion of these cases of sickness was caused by food poisoning. Food infection and food intoxication are the two subdivisions of food poisoning, an illness which is not reportable to the health department except in case of an extensive outbreak. When such occurs, a community which has an efficient health department will call in its personnel to make a study of the epidemiology of such illnesses. Here is where the veterinarian's knowledge and skill are of great value. His proficiency in rendering aid to the health office and physicians naturally will depend on the foundation upon which he is to build a suitable structure, based on the training he has received. Of course, his future efficiency will depend absolutely upon himself.

It is further estimated that the cost of such illness represents an outlay of fifteen billion dollars yearly. Statistics show that at least six billion dollars of this amount could be saved, if rules and regulations of preventive medicine could only be put into practice. With such facts before us, why procrastinate?

A prominent director of health in a Western city says: "There are three ways of preventing outbreaks of food poisoning, as follows: first, the regulation and supervision of all persons who handle food; second, the thorough inspection of all foods; third and most essential to the real control of the situation, the education of the public by those proficient in food hygiene." He says: "Food poisoning is as definitely preventable as smallpox or diphtheria. Yet, like those two diseases, it continues to occur because preventive measures are neglected." While outbreaks of food poisoning are so frequent as to constitute a challenge to students of public health and preventive medicine, this authority believes that only a small proportion of the cases that actually occur are reported. The time is ripe for a change. States and municipalities must formulate rules and regulations in order to check this menace.

This quotation is read, because it is especially significant of the change in the opinion of health administrators in favor of food hygiene.

But the guardians of public health, no matter how advanced and well equipped, obviously cannot prevent death, nor is it to be expected that they will eliminate disease and bring about a condition in which no one will die except in old age. However, with the new methods which are slowly and painstakingly being stored for their benefit and with growing armaments of preventive and defensive medicine at their command, we may reasonably look to them to restrict little by little those forms of illness (whether epi- or endemic) which destroy the young and hamper or devitalize those in the prime of life. Since most of the forms of illness are demonstrably, and all are theoretically, preventable, we must have the intelligent support of the community in order to accomplish this goal. We must have a better health-respecting public. How are we to bring this about? If the common people receive the right kind of education, the same will become popular immediately, due to the fact that anything which is done to enhance health is readily accepted.

The question is: By whom should the initiative be taken? Naturally, those who are proficient in hygiene and sanitation—the qualified veterinarians are ideal. The training they receive, or will receive, in comparative medicine, which is closely interlocked with preventive medicine, prepares them for this task. We must avail ourselves of the opportunity. I quote from a little pamphlet, "Carry the Message to Garcia": "If men will not act for themselves, what will they do when the benefit of their efforts is for all?" Cicero is said to have written than a man too busy to care for himself and others is like a mechanic too occupied to care for his tools.

Dr. W. H. Welch, dean of American medicine, says:

"While public health is the foundation of the happiness and prosperity of the people, and its promotion is recognized as an important function of the government, how wide is the gap between what can be achieved and what might be realized? Now how inadequate is the understanding of the public concerning the means adopted to secure the best results?"

Dean M. C. Winternitz, of the Yale Medical School, in his report to President Angell, of that University, points out that "no genuine solution of the problems of medical organizations of whatever nature can be reached until the interests of all groups concerned are given adequate consideration. The magnitude of the problem is certainly evident. There is a change already in progress; any and all organizations that are enlisted in teaching preventive medicine should be ready to do their part. The student should be given freedom of choice and more responsibility for his learning."

Dr. T. Wood Clarke, an authority on children's diseases, in a paper read before the New York State Milk Inspectors' Association, emphasized that food hygiene is eminently necessary. "Its thoroughness," he said, "depends upon the person making such inspections. He should be well qualified. I think the veterinarian the ideal person. The work is a great work. The responsibilities are heavy. Why? For life and death depend on your efficiency."

Along this line, your Committee wishes to express its appreciation to the deans of our veterinary colleges and also to those who have taken the time to answer letters asking them to express themselves as to the importance of food hygiene. Practically all regard this phase of our duties as absolutely necessary and are willing to give extra courses in preventive medicine. When students are graduated they will be able to take up food hygiene. As one dean said: "Veterinary education

has been neglected to a certain extent in this particular duty, which means so much to the veterinary profession and to public health." Such a statement, coming from this source, is encouraging. Looking ahead, I believe that veterinarians who become proficient will be honored by some kind of a special degree, similar to the D. P. H. in human medicine. This indeed is a goal to which we may look forward.

Now why should the veterinarian be proficient in food hygiene? In regard to milk sanitation we know that what has happened in one state can happen in others. It is reported that one state adopted a very efficient milk sanitation program. There were ten positions open for which veterinarians were eligible. Only one was selected and he was from another state. Agricultural men were chosen instead. These positions paid from \$2,400 to \$5,000 a year.

The dean of one of our veterinary colleges told me that he received a letter from an official in one of our large cities asking him to recommend a veterinarian to fill a position to be created in that city as chief of a bureau of food hygiene. His answer was that much to his regret he was not able to comply with the request. This dean sent the letter to another dean, and he made the same reply. This is a sad state of affairs.

As civilization becomes more complex, the ills to which the flesh is heir become correspondingly intricate, and by research we are discovering their causes by detecting the definite bacteria and studying the diseases caused by unwholesome food. The chances for us to remain healthy will be due to the preventive measures adopted. The service the qualified veterinarian could render public health has not been recognized to the extent it rightly deserves. Undoubtedly, if given the opportunity, physicians would seek our aid in helping to diagnose any illness with food poisoning as the suspected cause. One who has been privileged, many times, to sit with such groups reports that the results have been very gratifying. Public health is being emphasized more and more and is recognized as an economic blessing. It is assuming gigantic proportions. There is a steady tendency toward codes, rules and regulations guarding against disease and pestilence. Public policy requires conservation of human life, preservation of public health and the establishment of public sanitation on a firm workable basis.

It is plain to see that our profession can render service in this special branch of preventive medicine. We must not allow this opportunity to fade away. We must enhance it. Today we are slipping, and if this neglect continues, the field which is now open to us will gradually close and will pass into the hands of the laity, due to public opinion.

Much is to be done. It is only by a proper understanding of the importance and magnitude of food hygiene, of the problems involved, both human and animal, that future progress will be possible.

The closing remarks of Pasteur, at the opening of the institute bearing his name, are well worth consideration along this line of thought. He said: "There are two laws contesting with one another. The one, the law of blood and death, opening at each day methods of destroying life. The other, a law of health. Its only aim is to deliver mankind and animals from the enemies that assail them. God only knows which of these two laws will gain the upper hand." Now, it is up to us as guardians of the health of mankind as well as animals to use every means possible at our disposal to help enforce the laws of health. The time has arrived for veterinarians to devote more time to public health as pertaining to our profession, and to become associated with local health departments. The efficiency of such bureaus

depends upon the personnel, and its success is measured by the extent to which it cares for those under its charge.

The susceptibility of animals to disease and the tendency of meat to spoil, if not properly cared for after slaughter, has given rise to a system of inspection and handling which should be enhanced, in order that the consumer may be assured that meat and meat products are wholesome and nutritious. Such being the case, meat hygiene is one of the most important phases of our professional duties. It is not a theory but an actual condition which confronts us. It is a problem of the future, and, like all problems, it is the more fascinating because of its complications. Man does not rise to his best endeavors in the face of small problems. It is the genius of modern humanity to meet and attempt to solve the most difficult.

Meat, in a wide use of the term, is a name given to the flesh of such animals as are used for food. An animal is a living being endowed with sensation and power of voluntary motion. Consequently, those connected with meat hygiene should familiarize themselves with other meat used for food besides beef, veal, pork and mutton.

By meat hygiene we mean that part of the regimen—regulations and remedies which are intended to produce beneficial effects by gradual operation—which concerns the procurement of wholesome meat foods for man, as well as the dangerous or unwholesome meats which threaten the consumer. The principal object of meat hygiene is to protect the consumer against partaking of diseased or otherwise unwholesome meats. This involves not only the inspection of meats but also sanitary conditions and equipment (as well as the health of the handlers) in the abattoirs, packing-houses, local slaughter-houses, etc. Sanitary methods must be enforced in the preparation, curing and handling of meats. In order to enforce such rules and regulations, a qualified veterinarian must be in charge. He should be prepared to make ante- and postmortem examinations. If this cannot be carried out, the carcass should be brought to a selected public stand for inspection, with certain viscera attached, in order to have the official stamp placed on the same. We should emphasize the necessity of an abattoir, whether it be private or municipal, in order to exercise proper control over conditions. Public health cannot be safeguarded when animals are permitted to be slaughtered at any old place without inspection. The consumers of meat so slaughtered without veterinary inspection are dependent upon the activity of the local board of health for their protection.

What effect would meat hygiene have upon a community? It would be of great benefit to the live stock interests, the meat business in general, and the general public. It would eliminate the unscrupulous men of the industry who make a business of killing, yes, even cold slaughtering, any animals that may be consumed by the unsuspecting public and the products sold for whatever price they can get. This often turns out to be a high price for a low cost. These men place themselves in competition with meat dealers who are only too anxious to conduct their business in a legitimate way, and who place their confidence as to the wholesomeness of the meats upon the public-health stamp. The consumer always should recognize this stamp, as any government, whether federal, state or municipal, stands back of it and gives assurance that the meat is of a good quality. The meat is passed at the time of inspection.

The average consumer is able to determine for himself whether meat is tainted or spoiled unless preservatives are used, but he is not able to determine for himself whether or not it comes from an animal affected with a contagious disease. Nor can a skilled inspector detect disease in meat after it has been dressed and the viscera disposed of.

Consequently, the most important requirement in meat hygiene is the protection of the consumer against dangers from which he cannot protect himself, and this can be done only by a type of inspection which is not often provided by local authorities. But these officials are, as a rule, of an open mind, all willing to listen to suggestions that may be made. They are good listeners, but they must be shown.

Now, how did Utica, N. Y., proceed in the matter? What happened there can be brought about in other municipalities. Rest assured that it was no easy task. Here is the stumbling block: Many veterinarians seem to think that, if they try to enhance food inspection in their cities, it will look as if they are trying to create positions for themselves. Right they are, but who has a better right? The argument is all on their side and they can show the reasons. The local press is their best asset. They must have their subject well in hand. In Utica, a veterinarian delivered a well-prepared address at a service club luncheon, to which the city officials were invited. There was an overflow meeting, after which different persons were selected to interview the mayor and his cabinet. Everything went like clockwork, and the plan was working in three days. Food hygiene was endorsed by the city and has been in effect ever since. That was in 1917, with only one veterinarian employed. Today the personnel numbers 28, and it is one of the most important bureaus in the City Hall. The Bureau is under the direction of the Health Commissioner and its success has been due to his hearty coöperation. Therein lies the secret.

The following is a quotation from an address delivered at a public health conference by Dr. Hugh H. Shaw, Health Commissioner of Utica, N. Y.:

"I cannot understand why municipalities and particularly the veterinary profession has so neglected this phase of public health (food hygiene). What has been accomplished in this city of ours is simply beyond belief, but there is no end to the work to be completed.

"It certainly meets the approval of the consuming public. I say without fear of contradiction it is one of our great assets.

"It is our duty to render service; prevention is better than a cure.

"I just want to mention what has been accomplished by practicing eternal vigilance in regard to milk sanitation. It has reduced to zero the death rate of children under two years of age from that dreaded malady, acute gastro enteritis, which annually caused the deaths of from sixty-five to seventy babies during the summer months. Just that one item, to me, is enough to justify the necessity of veterinarians being associated in public health work."

The following figures show the work accomplished by the Bureau of Food Hygiene, Utica, N. Y., in 1932:

Vehicles inspected at stamping station.....	3,871
Meat markets inspected	2,251
Fish and poultry markets inspected.....	1,866
Slaughter-houses inspected	371
Cold-storage rooms inspected.....	216
Meat inspected (pounds).....	19,701,707
Meat condemned (pounds).....	195,937
Milk samples sent to laboratory for tests.....	2,321
Milk pasteurizing plants inspected.....	180
Dairies—first inspection	365
Stores inspected where milk is sold.....	4,136
Ice-boxes inspected	4,914

Restaurants inspected	419
Suspected food-poison cases investigated.....	42
Food commission houses inspected.....	72
Ice cream parlors inspected.....	1,013
Bakeries inspected	258
Hotels inspected	29
Milk consumed in 1926 (quarts).....	25,000
Milk consumed in 1932 (quarts).....	62,212

Your Committee believes that the A. V. M. A. should take the initiative, assume leadership. Through organization, coöperation and education, we can place our profession on a par with others who are enhancing public health. Public press notices should be encouraged. Keep food hygiene before the public eye. Our various veterinary associations should encourage the preparation and publication of papers which emphasize the meaning of this particular phase of preventive medicine to their members and to the public in general. Our veterinary journals could render greater service to their readers by editorials of encouragement in order that veterinarians would consider the possibilities awaiting action. The *Journal of the American Public Health Association* often calls attention to the necessity of food hygiene, as does *Hygeia*, published by the American Medical Association.

The time is ripe for action. The command is to march forward. We will not have a path strewn with roses. Stumbling blocks will be in evidence. We have a goal to reach. Right is no wrong to anyone. Success will be ours because we have a just cause. This work should be carried on.

There are certain qualifications necessary in order for veterinarians to be efficient in meat hygiene. Dr. J. M. Rosenau, in an article in *Preventive Medicine and Hygiene*, has this to say: A thoroughly trained person in meat hygiene is one of the most important links in the chain of an efficient meat hygiene system. First, he should be a qualified veterinarian, having special experience and training for his specialty. He must know the anatomy of the various food-producing animals, especially cattle, horses, swine, sheep and fowls, and must be acquainted with the normal parts of each. He must be able to distinguish between the different organs of the various species, so that he cannot be imposed upon by those who would like to substitute one for the other. He must know the character of all infectious diseases which are likely to pass through the district where he is located. The federal government recognizes that it requires a high degree of skill to conduct this work, and therefore it has placed meat hygiene under civil service, and further will not admit veterinarians who have not been graduated from recognized veterinary colleges."

The report of Dr. C. A. Cary on this subject, to the United States Live Stock Sanitary Association,* has saved this Committee an abundance of work which would have been necessary had the report not been made. The JOURNAL of the American Veterinary Medical Association published this report and it is to be hoped that it has been read universally. It certainly was worth while.

President Roosevelt, in his radio address, July 25, 1933, made the following statement: "When Andrew Jackson, 'Old Hickory,' died, someone asked, 'Will he go to heaven?' and the answer was, 'He will if he wants to.' When I am asked whether the American people will pull themselves out of this depression, I answer, 'They will if they want to.'"

*Cary, C. A.: Report on meat and milk inspection. JOUR. A. V. M. A., lxxxii (1933), n. s. 35 (3), pp. 360-376.

That is just what members of the veterinary profession can do in regard to food hygiene—they can advocate it if they want to.

Respectfully submitted,

(Signed) W. G. HOLLINGWORTH, *Chairman*

(Signed) J. S. GROVE

(Signed) E. D. KING, JR.

(Signed) J. P. IVERSON

(Signed) J. S. KOEN

PRESIDENT WILLIAMS: You have heard the report of the Special Committee on Meat Hygiene, rendered by a most sincere and enthusiastic advocate. What is your pleasure?

DR. KINSLEY: I move you that the report be received and referred to the Executive Committee.

DR. FITCH: I second the motion.

I would like to say just a few words. I don't know whether many of you know it, but Dr. Hollingworth has been a friend of mine for a good many years; in fact, his father was my grandfather's veterinarian. I have seen the work in which he is so vitally interested begin from a mere nothing until it is one of the most important of the municipality of Utica, near which I was born and raised.

If there is anything in which the veterinary profession should be interested, it is pure food and the supervision of the proper food supply for our people. The veterinary profession can do a great deal to forward this, and I believe that it is an opportunity which in many instances is not being followed through. This refers not only to those men who are in positions of trust in educational institutions and in state and municipal work, but it refers more particularly to practitioners who are in the field. They can do a great deal, Mr. President, to educate the clientele which they serve, for the purpose of improving the food supply which is consumed in their territory. (Applause.)

. . . The motion was voted upon and carried. . . .

PRESIDENT WILLIAMS: We call for the report of the Special Committee on History, to be presented by the Chairman, Dr. J. P. Foster, of Minneapolis, Minn.

. . . Dr. Foster read his report. . . .

Report of the Special Committee on History

MR. PRESIDENT AND MEMBERS:

During the past year, or, to be more exact, immediately following the commencement exercises of 1933, the course in veterinary medicine at the Georgia State College of Agriculture and Mechanic Arts, at Athens, was discontinued. The Division of Veterinary Medicine was established by this college in 1918, and the first class was graduated in 1921. There were thirteen classes in all, with a total of 70 graduates.

This is the first veterinary school to pass out of existence since the suspension of the United States College of Veterinary Surgeons, in 1927. There still remain in operation ten (10) veterinary schools in the United States, and two (2) in Canada.

Numerous inquiries have been received by the Chairman during the past year relating to historical data in connection with the veterinary profession. While a majority of these letters were from members of the profession, quite a considerable number have been received from authors, historians, statisticians, life insurance companies, and others. Replies were made to these various correspondents.

Referring to the history of veterinary medicine suggested by the late Dr. Pierre A. Fish, in his report as chairman of this Committee, at the Detroit meeting of this Association, in 1929, the material prepared by Dr. Fish is now in the hands of the committee, as well as the material that has been prepared by the present Chairman.

A complete list of the graduates of the forty-four (44) veterinary schools which now are, or have been, in existence in the United States and Canada, finally has been finished.

Statistics have been compiled during the past few weeks indicating the number in each of the 878 classes which have been graduated in the United States and Canada since the first class in veterinary medicine was graduated on this Continent—the one of 1866, Ontario Veterinary College, consisting of three (3) members.

Based on the statistics compiled by the chairman of this Committee, the total number of degrees that have been conferred by the veterinary schools of the United States and Canada, during the period from 1866 to 1933, inclusive, appears to be 20,444.

Respectfully submitted,

(Signed) J. P. FOSTER, *Chairman*

(Signed) C. J. MARSHALL

(Signed) C. D. MCGILVRAY

O. V. BRUMLEY

L. H. HOWARD

DR. KINSLEY: I move that this report be accepted and referred to the Executive Committee.

. . . The motion was duly seconded, voted upon and carried. . . .

PRESIDENT WILLIAMS: We will now call for the report of the Committee on Veterinary Biological Products, to be presented by Dr. H. J. Shore, member of the Committee.

. . . Dr. Shore read the report. . . .

Report of the Committee on Veterinary Biological Products

MR. PRESIDENT AND MEMBERS:

It is with deep regret that the Committee on Veterinary Biological Products reports the death, during the past year, of two of its valued members, viz., Dr. W. F. Crewe, formerly State Veterinarian of North Dakota, and Dr. M. J. Harkins, formerly with the Research Institute of Cutaneous Diseases, Philadelphia, Pennsylvania. In their death the veterinary profession suffered the loss of two of its distinguished and loyal members. Their places in the ranks of the profession will be difficult to fill.

At the 1932 annual convention, the Committee reported that the time had arrived to abandon the plan which it had endeavored to follow in classifying veterinary biological products and recommended that a plan similar to the one used by the American Medical Association should be adopted. This recommendation was approved. Accordingly the Committee has prepared and recommends for the approval of the Association, the following regulations for classifying veterinary biological products under the new plan:

Section 1. Policy: It is practically impossible for the American Veterinary Medical Association to test the efficiency of each biologic manufactured or produced for use in the practice of veterinary medicine. It, therefore, shall be the duty of the Committee on Veterinary Biological Products to examine and investigate the evidence submitted by producers of veterinary biologics, and others, with reference to the value of these products and recommend to the Association for acceptance the names of those which they consider possess value.

Section 2. Actual controlled experiments on any veterinary biological product which has further been confirmed by other investigators may be accepted by the Committee on Veterinary Biological Products as a basis for recommendation to the Association for acceptance of the product in question.

Section 3. The Committee on Veterinary Biological Products shall report to the American Veterinary Medical Association at its annual meeting the names of those biological products, which, in their opinion, are worthy of acceptance by the association.

Section 4. These regulations shall supersede those approved by the Association at its 64th annual meeting, and published on page 217 of the November, 1927, number of the JOURNAL.

Respectfully submitted,

(Signed) F. A. IMLER, *Chairman*

(Signed) ORLAN HALL

(Signed) I. M. CASHELL

(Signed) H. J. SHORE

DR. SHORE: I move that this report be received.

. . . The motion was duly seconded, voted upon and carried. . . .

PRESIDENT WILLIAMS: We are now ready to receive the report of the Special Committee on Tuberculosis, to be presented by the Chairman. Dr. E. T. Faulder, of Albany, N. Y.

. . . Dr. Faulder read the report. . . .

Report of the Special Committee on Tuberculosis

MR. PRESIDENT AND MEMBERS:

Since the inauguration of the Accredited Herd and the Accredited Area Plan, in 1922, the control and eradication of bovine tuberculosis has been one of the outstanding projects in practically every state and of the federal Bureau of Animal Industry. The progress made, we believe, has greatly exceeded the fondest hopes of any of the live stock sanitary officials.

When the work was inaugurated, the cry was heard that the campaign would deplete the cow population, cause a shortage of milk, and result in great suffering to the baby population. This situation has not happened.

The federal census indicates that at the present time the cattle enumeration of the various states totals approximately 58,000,000, harbored on approximately 5,360,000 farms. A report of the United States Bureau of Animal Industry for June, 1933, indicates that 3,926,645 herds, representing 35,736,707 cattle have passed successful tests under this Plan. Since the inauguration of the Area Plan, more than 2,500,000 tuberculous animals have been revealed, as a result of tuberculin tests, and slaughtered. At the beginning of this project, the average percentage of tuberculosis in the United States was 4, but now, as a result of the condemnation of this enormous number of tuberculous animals, the percentage has been reduced to a fraction over 1.

Of the 3,073 counties in the United States, 52.9 per cent are now listed as modified accredited. There are more than 1,500 counties in which the degree of tuberculosis is believed not to exceed 1 per cent. The cattle population in the counties where the highest degree of tuberculosis remains is 2,000,000, which represents only 3 per cent of the total cattle population in the country. Throughout the United States, more than 1,000,000 tuberculin tests are being applied to cattle each month, a large volume of this testing being done in the more heavily infected sections of the eastern states, especially New York.

During the fiscal year 1922-1923, 861 herds, representing 25,647 cattle were tuberculin tested. During the first year 1932-1933, 1,139,119 herds were tested one or more times, representing 13,443,557 cattle.

The elimination of the spread of tuberculosis among milk cows has placed the dairy industry on a more healthy and profitable basis. While the number of milk cows in the whole country has declined somewhat we are able, nevertheless, to produce milk and dairy products for 18,000,000 more people than during the year 1917.

It is gratifying to report that eleven states are now modified accredited, and in another group of fourteen states more than one-half of the counties are modified accredited.

AVIAN TUBERCULOSIS

In the following states: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, South Dakota and Wisconsin, systematic work is under way in detecting and eradicating tuberculosis in poultry.

TUBERCULOSIS IN SWINE

The best evidence that tuberculosis in swine is being eliminated is obtained from figures of the United States Bureau of Animal Industry covering cattle and swine slaughtered in official establishments. During the year 1923, shortly after the inauguration of the Accredited Herd Plan in the United States, 196,325 hog carcasses were tanked on account of tuberculosis. During the fiscal year 1931-1932, this number had been reduced to 38,305. As tuberculosis is gradually reduced in the bovine and avian families, there is a corresponding decrease in swine tuberculosis.

This brief report is convincing evidence that the Accredited Herd and Area Plan has been the only successful method ever developed for the control and eradication of bovine tuberculosis, and the recommendation is made that the live stock sanitary officials of every state continue to follow and carry out all provisions of this Accredited Herd and Area Plan and promote the work as rapidly as possible, the states not now coöperating to attempt area accreditation under the present plan. If indemnity or operating funds are hindering the work in any way, every effort should be made to obtain additional

funds, so that each state can be listed as modified accredited at the earliest possible date.

Respectfully submitted,

(Signed) E. T. FAULDER, *Chairman*
H. M. O'REAR
C. E. COTTON
C. C. HISEL

DR. FAULDER: I move that this report be accepted.

. . . The motion was duly seconded, voted upon and carried. . . .

PRESIDENT WILLIAMS: We will now call for the report of the Special Committee on Poultry Diseases. Dr. Hoskins has that report.

. . . Secretary Hoskins read the report. . . .

Report of the Special Committee on Poultry Diseases

MR. PRESIDENT AND MEMBERS:

The poultry industry has withstood the disturbing influences of the depression very well and this industry remains one of the great basic live stock industries. At all times the poultry-keeper could sell his products and, while at times the price has been low, yet the products could always be disposed of and some cash realized. On the whole, the price of poultry and poultry products has maintained a fair level and most successful poultry-keepers have withstood the extremely low prices better than other live stock groups.

Members of the Committee on Poultry Diseases urge the members of the American Veterinary Medical Association to visit the poultry exhibit and egg-laying contest at A Century of Progress Exposition. This is one of the best ways to learn some of the things that are being done by the poultry industry.

Pullorum disease continues to be one of the most important poultry diseases. Pullorum-disease testing continues to be done on a large scale and generally with very good results. The report of last year emphasized the desirability of intensive testing for the purpose of producing free flocks, from which new free flocks can be raised, rather than wholesale testing of large numbers. Pullorum-disease testing is very popular among poultrymen because it greatly reduces chick mortality and has a considerable value for advertising purposes. Members of the Committee feel that those are worthy aims, but the greatest justification for the test lies in the aim to produce free flocks and to use it as an eradication program rather than a control measure.

The tube test continues to be the most widespread method and the preferred official method of testing. The rapid test continues to be used by some. It is used with blood-serum, whole blood as a field test, and with various modifications. So far there is not sufficient published work to permit definite statements regarding it and the rapid test, together with the whole-blood test, must be considered in the experimental stage.

The antigen has long been considered a very important part of the pullorum-disease test. Studies are being continued with the antigen and its preparation. The Twelfth Annual Report on Eradication of Pullorum Disease in Massachusetts, Bulletin No. 63, Sept.,

1932, published by the Massachusetts State College, Amherst, Mass., contains a report of studies on antigen. Studies in this report state "Under the conditions of the investigation, concentrated *S. pullorum* antigen remained as sensitive and specific after storage for 583 days, at approximately 80° C., as freshly prepared antigen." . . "Dilute antigen of a pH 8.4 did not suffer an appreciable decrease in any of its essential qualities in a period of 15 weeks when held at a temperature approximately 80° C." The members of the Committee feel that antigen studies are important and should be continued.

The above report also contained interesting information on jellied blood samples. Jellied blood samples have been a problem to practitioners collecting blood samples as well as those conducting blood-tests. The conclusions of the above report are that the atmospheric temperature at the time of collection is a considerable factor in producing jellied samples. Blood samples taken during cold weather should be kept for a time at room temperature or even the application of heat facilitates the separation of serum and reduces the likelihood of jellied samples.

Fowl-pox vaccination continues to be quite generally satisfactory. The use of pigeon-pox virus for immunizing chickens continues to be tried out with some favorable and some unfavorable reports. As yet there are too few published reports of controlled experiments on which to base statements and this product must still be considered in the experimental stage.

Laryngotracheitis continues to cause serious respiratory disease in chickens. Dr. Charles S. Gibbs,* writing in the JOURNAL OF THE A. V. M. A., advocates a plan for the control of this disease. This plan, called the Massachusetts plan, is based on hygiene and sanitation, particularly directed at the carrier bird in this disease. The report of your committee of last year called attention to the work of Gibbs, and also of Beaudette, in establishing the fact that carriers exist in this disease. Dr. Gibbs' plan provides for the disposal of all birds passing through outbreaks or left on premises where outbreaks have occurred. Cleaning and disinfecting is then carried out, after which restocking is done. After this procedure the utmost vigilance is recommended in regard to hygiene and sanitation to prevent the re-introduction of the disease.

During the past year, a method of vaccination against infectious laryngotracheitis has been advocated by Beaudette and Hudson.† These investigators advocate the use of a dried, virulent virus in the cloaca. They consider the most desirable age for vaccination to be between the ages of two to three months.

This method uses a living virus and the members of the Committee feel that its use is an experimental procedure and great care should be exercised in its use as a control measure.

The members of the Committee feel that the Association might well be reminded at this meeting, held in connection with A Century of Progress Exposition, that poultry diseases remain with us and that the greatest bulwark against the advance of poultry diseases is the very strict adherence to the rules of hygiene and sanitation. We feel that veterinarians can very properly oft be reminded of the im-

*Gibbs, Charles S.: The Massachusetts plan for the eradication and control of infectious laryngotracheitis. JOUR. A. V. M. A., lxxxiii (1933), n. s. 36 (2), pp. 214-217.

†Beaudette, F. R., and Hudson, C. B.: Experiments on immunization against laryngotracheitis in fowls. JOUR. A. V. M. A., lxxxii (1933), n. s. 35 (3), pp. 460-476.

portance of correct hygiene and proper sanitation in the control and eradication of all poultry diseases.

Respectfully submitted,

(Signed) E. L. STUBBS, *Chairman*

(Signed) B. A. BEACH

(Signed) J. J. BLACK

(Signed) T. O. BOOTH

(Signed) H. W. GRAYBILL

(Signed) W. R. HINSHAW

(Signed) H. J. STAFSETH

PRESIDENT WILLIAMS: You have heard the report of the Special Committee on Poultry Diseases. All those in favor of accepting the report will signify by saying "Aye"; those opposed, "No." The motion is carried.

. . . Announcements. . . .

PRESIDENT WILLIAMS: The final general session will be held tomorrow afternoon at two p. m. Until that hour we will stand recessed.

. . . The session adjourned at 4:30 p. m.

RECESS

THURSDAY AFTERNOON, AUGUST 17, 1933

The fifth general session was called to order by President Williams at two-forty p. m.

PRESIDENT WILLIAMS: We call for the report of the Committee on Proprietary Pharmaceuticals. Dr. H. D. Bergman is chairman of that Committee.

. . . Dr. Bergman read the report. . . .

Report of the Committee on Proprietary Pharmaceuticals

MR. PRESIDENT AND MEMBERS:

The Committee on Proprietary Pharmaceuticals is in perfect accord with the evident general sentiment expressed from time to time by various members of this organization, to the effect that the presentation of lengthy detailed committee reports on our annual programs, unless the report is particularly pertinent and of special significance, is boresome and not conducive to the best usage of limited time. The activities of this Committee are a matter of record, subject to examination by the Association officers at any time and an attempt to review in detail its activities of the year would be not only time-consuming but rather impracticable, in view of the varied contacts maintained.

The Committee on Proprietary Pharmaceuticals, in its six years of existence, has become somewhat of an integral unit of our national organization, to which matters pertaining to its field of work come either directly or are referred from various sources for opinion or advice. The field of opportunity for the Committee and its ini-

tative need be limited only by the time that the personnel of the Committee can contribute gratuitously to the work. The general activities of the Committee during the year may be tabulated briefly as follows:

1. Coöperation with various publishers, advertisers, commercial interests, federal and state agencies, individual laymen and attorneys, on matters pertaining to alleged animal remedies and the rationality of the therapeutic claims made for same.
2. Coöperation with the Food and Drug Administration officials in a technical capacity on questions pertaining to therapeutic claims made for certain widely advertised pharmaceutical products. The chairman of the Committee has agreed to testify for the federal authorities in the near future in proceedings against one of the large manufacturers of so-called live stock remedies.
3. Some study, not complete, has been made of state laws controlling the sale of animal feeds and remedies within the states, and advisory coöperation extended to state officials interested in establishing or improving existing legislation directed at the traffic in these products in their respective states.
4. An official subcommittee of this Committee has given considerable time and thought to the inclusion of certain material in the current revision of the *National Formulary*, which may be largely or peculiarly of significance in veterinary medicine. In comment it may be said that there is a growing demand for the standardization of all drugs of considerable usage. This demand is manifest in veterinary medicine. The legal drug standards as established by the Congress of the United States are the *United States Pharmacopœia* and the *National Formulary*. It is important that certain drugs peculiar to veterinary medical usage be included in one or the other of these volumes.

In addition to the above tabulation of the general activities of the Committee during the year, a few observations on the interest and progress in matters pertaining to the exploitation of animal nostrums may be of interest. Apparently in many instances the states are recognizing the inadequacy of their laws in protecting the public against vendors of animal nostrums and also certain animal feed products. It is recognized that state laws must supplement the federal food and drug laws in order properly to control the advertising and sale of these products. During the recent legislative sessions in a number of states, there was marked interest and some success in the enactment and improvement of animal food and remedy laws. In some states, Iowa, Minnesota, Indiana and several others, bills were prepared but finally withheld from introduction, as the economic emergencies involving the live stock industry, and in some instances the veterinary profession, were such that supporters felt that the time was not auspicious for the proposal of such legislation. Undoubtedly much improvement is going to be made in state control laws supplementary to the federal laws in the very near future. That there is public interest in these matters is evidenced by the fact that recently the chairman of this Committee received a letter from the editor of one of the largest agricultural publications in this country, requesting coöperation in the way of material and advice for the preparation of a series of articles to begin this fall, in which the publication proposes to hold up to ridicule certain so-called live stock remedies and feeds. As the editor says, "We feel that one of the best ways to lead farmers away from the use of fake stock remedies and feeds is to poke fun at these fakes editorially." Coöper-

actively with the Food and Drug Administration the material requested has been furnished to this editor.

A matter of epochal interest and importance to both public and professional welfare is the bill carrying a complete revision of the present Food and Drug Act, which will be taken up in the coming session of Congress. The original Food and Drug Act, effective June 30, 1906, and as amended from time to time, fails to meet satisfactorily some of the control problems related to more recent food and drug manufacture, advertising, and other sales methods. The new bill, prepared in the United States Department of Agriculture, which is responsible for the enforcement of the Food and Drug Act, has been studied by this Committee with the view to determining whether any of its features might be discriminatory or inimical to professional interests. The bill very definitely and aptly defines, for the purposes of the Act, what constitutes a drug; also defines the terms "label," "labeling" and "advertisement." The latter is defined as follows: "The term 'advertisement' includes representations of fact or opinion disseminated in any manner or by any means other than by labeling." The latter would appear to include radio advertising of products shipped in interstate traffic. This undoubtedly has given inspiration for the following editorial excerpt from one of our metropolitan daily papers; while written in a humorous vein, the significance is clear:

"In between dance orchestras and heaven-sent crooners, have you been listening nightly on your radio to the wondrous claims for this and that product obtainable at the druggist's or the corner grocery store? If not, lend an ear. After Congress reassembles next January a graphic version of their marvelous qualities and properties may be lost to you forever.

"There's a bill due to come up that has radio and its advertisers shaking in their boots. The measure in question is a brand new food and drug act. It was written by Prof. Rexford Guy Tugwell, Roosevelt brain-truster and assistant secretary of agriculture. Tugwell completed his bill and had it in the hopper before the special session adjourned last month. It would have passed then except it was not an emergency measure. There is reason to believe it will be adopted next winter. A stringent and all-inclusive 'false advertising' clause is causing all the anticipatory woe. If it becomes law there are any number of tall and lofty claims that will never come over the radio any more."

It is of significance in connection with the above editorial that the provisions of the new bill specifically mention "cosmetics" along with "food and drugs" as included under the revised Act.

The new Act defines such important items as "drug adulteration," "misbranding," and what constitutes "fake advertising" very concisely and yet apparently sufficiently thoroughly to control the situation. It distinguishes sharply between allowable advertising for certain specific diseases which may be disseminated to the medical and pharmacological professions as compared to laymen. As a whole, the proposed new bill with its more modern interpretations and stipulations, would appear to be advantageous to professional interests, as well as the general public welfare, in that it will enable a better control by constituted authority of the exploitation of "nostrums" whether for man or the lower animals.

In closing this brief report, it may be said that the contacts and experiences of this Committee indicate that much progress is being made looking toward the protection of the public and the medical professions against exploitation by nostrum manufacturers, and in the development of sound therapeutic practices. Since the inaugura-

tion of this Committee, six years ago, the A. V. M. A. has been contributing in an important way to the adoption of rational practices in matters of the recommendation of pharmaceutical and special therapeutic products by the producers to the profession, and to the protection of the public and indirectly the interests of the profession, by coöperating in an advisory capacity on matters pertaining to animal nostrums. This has been accomplished at very little expense to the A. V. M. A. and largely by the willingness of the members of the Committee to contribute their time and efforts to a worthy purpose.

Respectfully submitted,

(Signed) H. D. BERGMAN, *Chairman*
R. S. AMADON

(Signed) R. A. CRAIG

(Signed) H. J. MILKS

(Signed) E. L. QUITMAN

DR. BERGMAN: Mr. President, this report is presented as a progress report.

PRESIDENT WILLIAMS: You have heard the very excellent report of the Committee. I will entertain a motion to receive and refer this report to the Executive Board.

DR. KINSLEY: Mr. President, I so move.

. . . The motion was duly seconded, voted upon and carried. . . .

PRESIDENT WILLIAMS: We will pass on to the report of the Special Committee on Agricultural Extension Service, to be presented by Dr. H. E. Curry, of Kansas City, Chairman.

. . . Dr. Curry read the report. . . .

Report of the Special Committee on Agricultural Extension Service

MR. PRESIDENT AND MEMBERS:

The Committee finds that many members of the A. V. M. A. are not familiar with the workings of the Agricultural Extension Service, and its relations to the live stock industry and the veterinary profession. Therefore, it would be in order to review briefly the findings of the various committees which have conducted investigations on this subject.

We find that the committee under the chairmanship of Dr. J. S. Koen carried on the first survey in 1930. They made an exhaustive study of the extension service and later held conferences with the directors of that service in Washington. It appears that Dr. Koen and his associates elected to work along peaceful and coöperative lines, in an effort to bring about a happy solution of the problems at hand. Agreements for correction of some unfair practices were reached and some progress was made.

We find that members of the Southeastern Georgia Veterinary Medical Association, through its Secretary, Dr. Hugh F. Arundel, rendered valuable assistance to the A. V. M. A. Committee in an effort to stop the practice of extension workers engaging in various phases of veterinary practice.

The Committee, with the same personnel, carried on through the second year (1930-31) and it appears that some of the promises made the previous year were not fulfilled. On the contrary, the Committee found that the usurpation of veterinary practice in a few states was being carried on in a more flagrant manner than ever before.

Confronted with that situation, the Committee adopted a vigorous line of attack and called a "spade a spade" when and where they found it. This resulted in the extension service coming into the open and disclosing its aim to an extent previously unknown. It also showed the hopelessness of any coöperative efforts with a service whose frank intention is to take over animal-disease control in this country.

Dr. J. E. Shillinger, of Washington, D. C., was chairman of the Committee for 1931-32. It was the hope of many that since Dr. Shillinger was in a position to establish and maintain close relations with officials of the extension service in Washington, he and his associates would be able to convince the directors of the extension service of the possible danger to our live stock industry, and the injustice perpetrated upon the veterinary profession by encouraging laymen to engage indiscriminately in the distribution of animal biological products and medicinal preparations used for the prevention or treatment of diseases in our domestic animals.

This Committee made an earnest effort to coöperate with the extension forces. They reported on the cause and effect of trouble, where it was encountered, and suggested ways and means to correct it, but apparently the seeds of their labor fell among stones, as very little fruit was visible in the form of improvement in affected areas.

Last year, Dr. C. W. Warburton, Director of Extension Work in the U. S. Department of Agriculture, appeared before you in Atlanta and presented a very comprehensive report on the accomplishments of the extension service. He explained how the service had grown, in the short period of twenty years, to where it employed 6,000 workers and was spending approximately \$25,000,000 annually.

Unfortunately, Dr. Warburton did not say anything about contracting or withdrawing any of the lines of activities, that have been extended, in some localities, to such a degree that men engaged in the practice of veterinary medicine have been driven out because they could not compete with agents whose salaries and expenses were paid out of public funds.

That, in brief, is the history of the situation and brings us to the point where the burden was placed in the hands of the present Committee, with instructions from President Williams and the Executive Board to carry on and prepare a report for presentation before the Shannon Congressional Committee, which was conducting hearings for the purpose of determining the extent of government activities in competition with private business. We promptly proceeded to get accurate first-hand information on the subject. We employed legal counsel and, with the help of many members of the Association, our report was ready for presentation in November, 1932. Copies of the report were forwarded to all members of the Executive Board, and, at the November, 1932, meeting of the Board, these recommendations were approved.

A copy of our report to the Shannon Committee was forwarded to each member of the Committee on Agriculture of the House of Representatives and of the Committee on Agriculture of the Senate, and others. We called attention to the fact that it would not have been possible for our live stock industry to have made the wonderful strides or to have reached the high degree of production and marketing of its products without the aid and assistance of a competent and efficient veterinary service. We also called the attention of the

Committee to the danger of having this service disrupted and disorganized by a selfish group of individuals paid from public funds distributed through the agricultural extension service. We further charged that such activities were in direct violation of the provisions of the Smith-Lever Act, under which the extension service was working and not in keeping with the interpretation of their duties as set forth by the Secretary of Agriculture.

At the time we submitted our report, conditions in this country were fast approaching the breaking point. Our markets for agricultural products were breaking under the tremendous burden of overproduction; deficits in our national treasury were piling up at the rate of \$5,000 a minute and farmers were being forced into bankruptcy at an appalling rate. We charged that since the primary purpose of the agricultural extension service was to increase agricultural production, the need for this service no longer existed and therefore we urged that Congress withhold further appropriations for extension service.

We attempted to place our case before the Agriculture and Appropriations committees of the House and Senate. In this we were not successful. However, we resorted to letters and telegrams and, on February 9, we received the following telegrams:

SENATE APPROPRIATION BILL WAS REPORTED BY
COMMITTEE SEVERAL DAYS AGO AND IS NOW ON THE
SENATE CALENDAR THEREFORE THERE WILL BE NO
OPPORTUNITY FOR FURTHER HEARINGS
(SIGNED) CHAS. L. McNARY, CHAIRMAN
SENATE COMMITTEE ON AGRICULTURE

AGRICULTURE APPROPRIATION BILL CARRIES FOUR
MILLION SEVENTY-TWO THOUSAND FOR AGRICULTURAL
EXTENSION SERVICE AND ONE MILLION FOUR HUNDRED
TWENTY THOUSAND ONE HUNDRED EIGHTY-NINE
DOLLARS FOR FARMERS COOPERATIVE DEMONSTRATION
WORK

(SIGNED) CHAS. L. McNARY, CHAIRMAN
SENATE COMMITTEE ON AGRICULTURE

This would represent a reduction in federal appropriations, for agricultural and coöperative demonstration work, of \$4,500,811. Information at hand indicates that even greater reductions have been made in state and county appropriations.

We of the Committee found that farmers in many sections of the country no longer desire to participate in the benefits promised them by the extension service.

Many counties voted to discontinue the services of county agents last year, and several others would have done so had it not been for the technical restrictions placed on the statute books of some states, apparently for the protection of the extension service in such emergencies.

The so-called "mouse-trap law" of Nebraska is probably the most outstanding piece of legislation along that line. In order that you may have an idea of the provisions in the law, we quote from an address made by Mr. Misegradis, of Talmage, Nebraska:

"Statute 2-1102 provides for a remonstrance petition necessary to abolish the office of County Agent. This remonstrance paves the way for a referendum. The requirements established to bring the matter to a vote of the people in the county is one of the most unjust laws written into the statutes of any state. This law reads about as follows:

"If one-eighth more actual farmers, bona fide residents of said county, actively engaged in farming, sign a remonstrance petition to remove the County Agent Office, than signed the 1928 petition"

for the office, then the County Board shall submit the whole proposition to a vote of all the people of said county. Hired men, day laborers on farms, housewives, daughters of farmers, nor those signed 1928 petition for, are all barred from signing remonstrance petition.'

"The bad features that are present in this law are (1) that only farmers can sign the remonstrance, yet the whole public of the county is taxed; (2) that it takes one-eighth more signed simply to bring the matter to a vote of the people than it takes signers to make it mandatory to create the office; (3) any one signing the petition to create the office is, according to the letter of the law, forever barred from signing the remonstrance; (4) if half of the farmers of the county sign for a county agent, it then is impossible to abolish the office until enough of the farmers who signing 1928 petition for, are all barred from signing remonstrance as is partially the case here in Otoe; it then further prevents bringing the matter to a vote. It is only through a vote of the people that this office can be abolished; under the existing laws it is now almost impossible to abolish the county agents now holding office.

"This whole farm aid scheme is pernicious class legislation from the Federal Department of Agriculture down to the State Agricultural Colleges and County Agents interlocking with the Extension Departments of Agricultural Colleges, also the socialistic nostrum of manufacturing serum by the states."

At the general elections last year, farmers of many counties in that state attempted to exercise their rights as American citizens to free themselves of what they considered a needless expense. You may surmise their attitude when they were denied the right of suffrage to vote on the question because someone had persuaded them to sign a petition a few years ago to have the service established in their county.

The revolt was overwhelming and in a few sections the barrier of the so-called "mouse-trap law" was not sufficient to stem the attack and about nine counties got out from under the yoke.

We understand that certain forces are now engaged in attacking the constitutionality of this law. As evidence as to how farmers in other states feel regarding this so-called free service, we quote from the *Kansas City Journal-Post* of Tuesday, February 21, 1933:

Lexington, Mo. (Special) Two hundred farmers Monday told the LaFayette County Court that they were opposed to further appropriations for the conduct of the LaFayette County Farm Bureau and Extension Work.

Simultaneously they endorsed the action of Presiding Judge J. Earle Lyons in refusing to sign a warrant for a monthly payment of \$1,600 appropriated for farm bureau work by a farm County Court last November.

"I don't think extension work is worthy," declared Will Walker, of Higginsville, one of the speakers. "Why last week there was a man traveling over the county at a wage of \$10 a day and expenses, telling us how to doctor horses for bots. There are plenty of veterinarians in LaFayette County who can perform this service.

"Some time ago a woman was brought here from Columbia, who told our wives the proper way to put vegetables in a bowl, mix them up and produce salad."

He added that extension work was just another of many things which gradually are "taking the farmer out of existence." Charles Filler, of Odessa, told the court he recognized that some farmers

wanted the extension work. "We don't want it though," he said, "and we say, let those who want it pay for it."

Is it not possible that extension service may, to a large degree, be responsible for the present chaotic state of agriculture? They had 6,000 workers, including experts in every line, operating in about 2,300 counties, and they claimed credit for all of the progress made. Why should not they assume their share of responsibility for the failures? The late President Coolidge once remarked: "If you take credit for the rain, you must also assume responsibility for the drought."

Investigations in some sections disclose that farmers were advised to dispose of their horses and mules, along with their breeding stock, thereby making it possible to place millions of acres of pasture lands into cultivation, which, according to reports of the Horse Association of America, added 25 million acres to surplus production.

As the horses and mules were moved out, tractors, combines, trucks and automobiles moved in. Hay and grain went to market, gasoline and oil were hauled back to the farm and now farmers are wondering where they will get the funds to pay the interest on the mortgages which furnished the money to purchase the motor equipment.

Realizing that all was not well in the extension service, President Hughes, of Iowa State College, appointed a committee to make a survey of conditions in that state. The committee consisted of J. B. Davidson, head of the Agricultural Engineering Department; Paul C. Taff, Assistant Director of the Extension Service, and H. M. Hamlin, of the Department of Vocational Education. The committee made a two-year study of the extension work in agriculture and home economics. As a result of their findings, more than one hundred changes were recommended for extension work. Among them were the following:

1. Divorcing the Extension Department from the Farm Bureau with its membership fees and affiliated state organizations.
2. That county organizations use only public funds.
3. That it not engage in political or *commercial* activities or be controlled by a group which enters these pursuits.
4. It also suggests need for an extension cabinet, composed of members of both the resident and extension staffs, to determine the policies of the extension service and to review the work of the group much as does a board of directors in a commercial organization.

The findings of the Hughes Committee are in accord with and confirm the findings of the committees which have made surveys of this subject for the A. V. M. A.

A cabinet plan, as recommended in the Hughes report, including a veterinarian in its personnel, will afford a medium through which the many problems affecting the extension service and the veterinary profession may be solved.

The Hughes Committee makes reference to political activities. Ample evidence of gross irregularities in this respect is available.

As a sample of the commercial activities of extension workers, we submit part of a report of an Illinois county farm advisor for the year 1932:

His time was divided into units and shows 31% units devoted to vaccination and disease control.

In the list of merchandise sold, we find:

Anti-hog cholera serum.....	1,240,000 cc
Anti-hog cholera virus.....	97,000 cc

Total	1,337,120 cc
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Total sales, year 1931.....	1,203,960 cc
Hemorrhagic Septicemia Aggressin (doses).....	2,400
Hemorrhagic Septicemia Bacterin (doses).....	800
Mixed Bacterin (doses).....	1,385
Blackleg Aggressin (doses).....	450
Worm expeller (gallons).....	20
Tincture of iodine (dozen).....	8
Mercurochrome	200

The case just cited is an average one in a state where no attempt is made to control such conditions and we think most of you can appreciate the difficulties confronting a young man entering the veterinary profession, in an attempt to earn a living in a community where such operations are carried on with federal, state and county funds. Information furnished the Committee shows that the state in question has sustained a recent decrease in the number of practicing veterinarians to the appalling extent of 216.

The Committee believes that the evidence obtained by it substantiates the view that an organized drive has been under way to exempt county agents from the provisions of the veterinary practice acts in all the states. This action has been taken already in North Carolina and in Nebraska. In the latter state, it is only as far as the administration of serum and virus is concerned. But for an unexpected turn in the elections of 1932, undoubtedly it would have succeeded in Illinois last winter. The matter is of more importance than any leading veterinarians seem to think, since it in effect amounts to breaking down, as far as county agents are concerned, all the safeguards that have been thrown around veterinary practice by veterinary practice acts which are in force in every state. These safeguards are primarily for the protection of the live stock industry and not of veterinarians. This is just additional evidence, of which the Committee secured a great deal, that the agricultural extension services are not interested primarily in the welfare of the live stock industry or of agriculture, but are interested first and foremost in making bigger, better and more jobs for themselves.

The plan of an agreement code offers an additional means of correcting existing evils. As a result of the untiring efforts of President Williams and his associates, a code of agreement was entered into by representatives of the extension forces and the veterinary profession of Texas:

CODE OF AGREEMENT BETWEEN EXTENSION WORKERS AND VETERINARIANS

1. There should be a continuation of the policy that county agents and other extension workers should confine their activities of instructions and practical demonstrations in live stock production to persons not attending or resident in colleges in the several communities and in imparting to such persons information on said subjects through field demonstrations, publications, and otherwise. The creation of extension work under the Smith-Lever Act made such activities obligatory on the part of extension employees.

2. The policy of the extension service that its employees shall not practice veterinary medicine is re-affirmed. County agents and other extension workers are to confine their activities to instructing farmers and ranchmen by the dissemination of the best known information, as secured from publications issued by the United States Department of Agriculture, the various State Experiment Stations and other sources of reliable information in the profitable production of live stock. Specifically we recommend that

county agents refrain from making calls to treat sick animals and that they refer the farmer, who calls upon them for veterinary assistance, to the local veterinarian.

3. In the event of a seeming outbreak of contagious disease within a county, the county agent should report such an outbreak to the Director of Extension and at the same time send copies of his report to the Live Stock Sanitary Commission and the local veterinarian.

4. The State Board of Veterinary Examiners furnish the Director of Extension the name of any county agent who is believed to be practicing veterinary medicine illegally after this date, so that the matter may be investigated and the offending agent properly disciplined.

5. That the Secretary of the State Veterinary Association furnish the Director of Extension with a list of the licensed, practicing veterinarians, with their addresses revised from time to time, and that the Director of Extension furnish a like list of the county agents to the Secretary of the State Veterinary Association.

That all agencies concerned make special efforts to establish a friendly spirit of coöperation and relationship between the two groups, to the end that the live stock industry of our State may be more efficiently served.

We find that similar agreements exist in the states of Michigan and Missouri. We believe that such a plan has great possibilities and we urge the officers of each state veterinary association to make a study of the plan, to prepare a code and submit it to the State Director of Extension Service and the Dean of the State Agricultural College. In the event they decline to recognize your efforts, the matter should be referred to the A. V. M. A. for presentation to the directors of the National Recovery Administration for action.

Unfair competition in the form of "racketeering" and "chiseling" is recognized as a factor in retarding the return of business to normal.

The National Industrial Recovery Act granted President Roosevelt practically unlimited power to use whatever means he deemed necessary to bring about a restoration of affairs in this country, by making it possible for our people to find employment and thereby earn sufficient to provide for the necessities of life.

One of the outstanding features in the campaign now being waged is the attack against the malicious practices of racketeering and chiseling. It has been found that the methods pursued by some county agents are in accord with the modern definition of racketeering and chiseling. It may be possible to stop such actions of the extension workers by making citations of their acts and deeds to the directors of the National Recovery Administration.

The following recommendations were presented to and adopted by the Executive Board, November 30, 1932:

1. That the report presented to the Shannon Congressional Committee be approved by this body for presentation to the Agriculture and Appropriations committees of the Congress and that a representative or representatives of the Committee be authorized to proceed to Washington, if necessary, to present the facts contained in this report to the proper Congressional committees for action.

2. That one thousand copies of the report be published for distribution to members of Congress and others.

3. That the Executive Board of the A. V. M. A. present this report to the U. S. Live Stock Sanitary Association for their consideration and approval.

4. That this Committee be authorized to take such action as may be necessary to have the report presented at various state association meetings that may be held during the next few months.

5. That necessary funds be appropriated in order that the Committee may carry on its activities.

And we further recommend:

1. That, in each state, where unfair practices on the part of extension service forces exist, the state veterinary association request and urge the formation of a cabinet, endowed with the power to regulate and direct extension service, the cabinet to have a veterinary member.

2. That, in any state where it is not possible to form a cabinet, a code of agreement be prepared between the State Veterinary Association, extension workers, the College of Agriculture and the Experiment Station, specifically detailing the activities of the extension workers.

3. That this Association present the extension service problem to the directors of the National Recovery Administration for their consideration and action.

We take this opportunity to express our appreciation for the assistance rendered the Committee by Secretary Hoskins, Drs. J. V. Lacroix, E. A. Cahill and D. F. Luckey, and Mr. M. W. Borders, legal advisor.

Respectfully submitted,

(Signed) H. E. CURRY, *Chairman*

(Signed) L. N. MORIN

(Signed) D. M. CAMPBELL

DR. CURRY: I move that the report be received and referred to the Executive Board.

DR. NELSON: I second the motion.

DR. KOEN: I would like to offer as a substitute motion that, instead of referring this report to the Executive Board, it be adopted by this Association assembled here.

DR. N. W. ACKERMAN: I second the motion.

DR. KOEN: The work of this Committee is one of the most important functions of the Association. The Committee has expended a great deal of effort and time and it deserves consideration by this body, more than a mere vote without discussion and consideration. It deserves the support of everyone who is interested in the preservation and extension of the veterinary profession.

There are two fundamental things that confront this Association that are of prime importance to every veterinarian. The first is that the veterinarian in practice shall be sustained in his field and his work; the second is that we shall extend veterinary service wherever it is possible. Unless the abuses that are practiced by extension workers in the Middle West against the men in practice are corrected and stopped there is no use

for our veterinary schools nor for this Association to attempt to extend veterinary service.

First, we have got to support the men who are already established in practice, before we can hope to ask other young men to take up the study. Practitioners always have been the backbone of our profession and of this Association. Unless we support them we had just as well give it up and turn it over to the extension workers.

This Committee has outlined to you, and the committees that have preceded it have outlined to you, the many abuses that have confronted the practitioners over a long term of years. We have shown to you that the extension forces do not intend to retract; they do not intend to stop unless they are compelled to stop. No one is going to try to fight our cause for us or to fight the cause of the practicing veterinarian for him unless the A. V. M. A. does it. We can't hope for anybody else to do it.

The previous committees of the past four years and this one have shown to you the deplorable condition that confronts the men in practice out here, due to the abuses and the inroads of the extension workers on the field of the practitioner. So, if we intend to support them and if we intend to make an opportunity for other young men to carry on the work of the veterinary profession, the work of this Committee and of the previous committees needs to be supported.

For that reason, instead of referring the report to the Executive Board for action, I believe that this Association and this assembly should vote for its adoption and the approval of the work of the Committee. (Applause.)

DR. J. W. CONNAWAY: Mr. President: In court, you know, the judge always appoints an attorney for the defense, when the culprit has none; and it seems that the culprit has no defense here. Permit me to say a word in his behalf.

I am in hearty sympathy with everything in the report that seeks to remove causes of discord and bring about harmony between veterinary practitioners and county agricultural extension agents. But I do not approve the spirit manifested in portions of the report, and which is likely to retard rather than promote harmony and helpful coöperation.

As alluded to in the report, we are getting along pretty well in Missouri, and I believe that if the policies which we have in force, and are trying faithfully to carry out, are applied by any state where friction exists—say, for instance, in the state where Dr. Koen resided for a number of years before his recent removal to Missouri—the relations between veterinary practi-

tioners and county agents would become coöperative in localities where they may now be antagonistic.

I would dislike very much for this great body of veterinarians to place themselves in an attitude of trying to wipe off the map the agricultural extension service. This is a service which is here to stay, in spite of any and all antagonisms; and it should say, because it has done a magnificent work for agriculture, and incidentally for the veterinary profession. It should have our support and not our condemnation. Its helpful mission is by no means at an end.

I agree that any abuses connected with the agricultural extension work should be corrected; but in bending our efforts to secure that end we should not try to blacken the work of hundreds of good men in that service who are our genuine friends. The abuses complained of, I am convinced, are confined to a very small fraction of the extension workers. Moreover, touching this matter of the relations of the veterinary practitioner to the county agent, we should not forget the truth and wisdom of what Dr. Hall said two years ago, in his presidential address before this Association at Kansas City, to the effect that it is well to recognize the possibility that the veterinarian, as well as the county agent, may now and then be at fault. Moreover, that we should not ask for unreasonable things in the defense of our legitimate rights; and that it is better psychology to attack a problem on the assumption that a man may be made into a friend and ally than on the assumption that he must be fought as an enemy.

It is my judgment, Mr. President, that this report should be referred in regular order to the Executive Board, for their more deliberate consideration and appropriate action. I hope the vote will so decide.

DR. CURRY: In reply to Dr. Connaway, the Committee has endeavored to follow that practice of coöperation, realizing that more could be accomplished; but you know that it takes two to coöperate, Doctor. One can't do it.

DR. CONNAWAY: You haven't had any trouble with our Extension Department, have you?

DR. CURRY: I mentioned in the report that conditions in Missouri were going along nicely, which I am happy to see.

At Atlanta, last year, after Dr. Warburton presented his paper, I asked for an interview, and I had in my possession at that time affidavits subscribed and sworn to by practicing veterinarians setting forth where county farm advisors and exten-

sion workers drifted into the practice of immunizing dogs against rabies, vaccinating dogs against canine distemper, and activities of that sort. I said, "Do you consider that a part of extension work?"

He said, "No, but we have no control over that."

I said, "My God, man, you are spending \$25,000,000 and you say you have no control over the men doing that work?"

That is one example of an attempt to coöperate; and that has been the trouble all the way through this thing.

Last December, the publicity agent of the Omaha Board of Trade released two articles for publication. One of the heads of the extension service in Washington arrived in Omaha as rapidly as a train could transport him there. He proceeded to this man's office and made a flat denial of the charges and said that the county agents of Nebraska were not engaged in any form of commercial activity of any sort, while at that same time we were receiving communications and complaints from practitioners in the state of Nebraska to the effect that county agents were extensively engaged in that practice.

You may know how to coöperate with that sort of business, but I am frank to say that I don't, that when you confront them with the goods they say, "We have no control over that." We appreciate that there is merit in extension service, but haven't they over-extended themselves? Certainly they have gone beyond the provisions of the Act under which they are working, according to the interpretation of the Act by the Secretary of Agriculture, yet it is such a complicated mess that no one seems to have control and they go on and do as they please.

I have in my office about 150 pounds of information in the form of magazine articles, newspaper clippings, letters, and things of that sort, complaining of the activities of these men in usurping the rights of veterinary practitioners. As Dr. Koen said, this isn't something that happened yesterday. For four years committees of this Association have attempted to coöperate with these men. Apparently they don't want to.

It was mentioned in the report that a ray of hope comes from Iowa. I think Professor Hughes probably sees the handwriting on the wall. In that connection I can't agree that extension service is here to stay. It is, as long as they confine their activities to true extension work as prescribed in the provisions of the Smith-Lever Act, but when they begin to extend themselves into all lines of activities, professional, industrial, and commercial enterprises, then they may be like the proverbial snake

that swallowed its tail and turned inside out. That is what may happen to the extension service unless they take heed of some of the conditions that we are calling to their attention at this time.

DR. KOEN: That I may not be misunderstood, the preliminary report, as I understood it, recommended the abolishing of the appropriations to continue the extension service. Congress has voted further appropriations. That part of the report doesn't concern us.

President Williams, in his own state, has pointed a way for this Association and for other states, by the adoption of a code that is very fair and liberal to both sides, and if that is lived up to and if the Warburton article on policy, which we secured two years ago, were lived up to, there would be no more abuses by the extension workers.

As I understand the report that is submitted here today by this Committee, it is to abolish the abuses and not to abolish the extension work. The appropriation by Congress has been made since the report of this Committee was made to the Shannon Committee, last November.

I want to say that the work of this and the previous committees deserves your support and your backing. You are not only supporting them but you are supporting the men in practice who have had to submit to the abuses and to all of the evil results that come from them, and it is for those men that I primarily ask your support by adopting the report here. (Applause.)

DR. CONNAWAY: Mr. President, I want to repeat that I am in hearty accord with every effort to abolish abuses, wherever such may exist in the extension service, or where they are detrimental to the proper interests of the veterinary profession; but I am very much against the endorsement by this meeting of sentiments and efforts that seem to favor the serious crippling if not the abolition of the agricultural extension service; for I am fully convinced that the great mass of veterinary practitioners throughout the country in the exercise of their best judgment are not antagonistic to this service but realize and appreciate its great value.

PRESIDENT WILLIAMS: This motion of Dr. Koen, gentlemen, in effect is a request for the direct action of this Association, the final court of jurisdiction in all matters. If you refer this matter, you are simply referring it to the Executive Board for their consideration, and the Executive Board, at the end of a year, will refer it back to this body for action. I want to have

that clear. Dr. Koen's resolution will put that in your hands today; the other resolution defers it for one year.

. . . Dr. Koen's motion was voted upon and carried, Dr. Connaway dissenting. . . .

PRESIDENT WILLIAMS: We have no report of the Committee on Policy. However, Dr. Hoskins has the report of the Chairman of the Committee on International Veterinary Congress.

. . . Secretary Hoskins read the report. . . .

Report of the Chairman of the Organizing Committee of the 12th International Veterinary Congress

MR. PRESIDENT AND GENTLEMEN:

Since the meeting of the Organizing Committee in August, 1932, at Atlanta, marked progress has been made in the organization of the 12th International Veterinary Congress, to be held August 13-18, 1934, in New York City.

The special committee appointed for the selection of reporters from the United States has concluded its work and this committee deserves the highest commendation for its effort in choosing outstanding men for the various subjects on the program.

The Secretary of the Permanent Committee communicated with all members of that Committee in the various countries, suggesting the urgency of the formation of national committees in their respective countries and also requesting that reporters from these countries be suggested. While the response to this appeal was all that could be expected, nevertheless, some of the countries did not respond in time to have their recommendations considered at the final meeting of the Permanent Committee, held May 20, in Paris. This neglect is most unfortunate, as some of the countries which should have been represented on the program could not be given consideration, and this omission must be charged directly to the failure of representatives of the several countries to respond to the Secretary's request.

In this connection, it might be of interest to you to know that Italy made a formal request to the Permanent Committee to have the Italian language adopted as an official language for the coming International Veterinary Congress, and, furthermore, that should this request be disregarded, the Italian government would not officially participate in the Congress. Inasmuch as, upon the recommendation of the Organizing Committee, the Spanish language has been included for the 12th International Veterinary Congress, in consideration of the large participation of the Spanish-American countries, the Permanent Committee awaited the reaction of the Organizing Committee to the Italian request.

Your Chairman, representing the Committee, expressed the view that it would be unwise to have another language included, not only because of the additional expense it would entail but also because of the time the adoption of another language would require to carry out the program of the Congress. Fortunately, just before the closing of the meeting, a telegram was received from the representatives of the Permanent Committee of Italy, stating that the Italian authorities had withdrawn their demand and that they will participate even though their language is not accepted as official for the Congress.

It is unfortunate, however, that Italy has failed to name reporters for the program, although it would have been very desirable to have some of their outstanding men represented. It is hoped that the Or-

ganizing Committee will give this matter consideration and include some of the representatives from Italy on the program. Canada and other countries have also failed to name reporters and the Organizing Committee, having the privilege to do so at this time, will no doubt take appropriate action.

It is further suggested that the Organizing Committee at this time carefully consider the reporters named for the subjects contained in the program and suggest such changes as they deem advisable for the success of the Congress. The program was carefully considered at a special meeting of the executive officers of the Permanent Committee, held at Budapest, November 3, 1932, and at the meeting of the Permanent Committee, at Paris, on May 20, it was further considered and such changes made as recommended by its members.

At the meeting at Paris, 18 countries were represented, namely: Argentina, Austria, Bulgaria, Czechoslovakia, Denmark, Egypt, England, France, Germany, Hungary, Poland, Roumania, Spain, Sweden, Switzerland, Turkey, United States and Yugoslavia. Prof. LeClainche, vice-president of the Permanent Committee, who presided at this meeting, held at the magnificent offices of the International Bureau of Epizootics, greeted the representatives of the Permanent Committee, and especially so Dr. Eichhorn, who had traveled a great distance to attend the meeting.

Prof. LeClainche presented the resignation of Prof. Hutya, who, with the deepest regret, informed the Committee that he was unable to continue to serve as president of the Committee, due to prolonged illness. The resignation of this splendid, outstanding veterinary scientist was accepted and Prof. LeClainche elected President by acclamation. The vacancy thus created in the vice-presidency has been filled by the election, also by acclamation, of Dr. John R. Mohler, of the United States, upon the nomination of Dr. Eichhorn.

After briefly discussing various matters, the Committee proceeded with the discussion of the program to be adopted for the 12th International Veterinary Congress. The Committee gave very thorough and careful consideration to the recommendations as to the subjects to be discussed at the Congress and, after due deliberation, definitely adopted a program. The recommendations of reporters upon the various subjects received from the national committees then were discussed and the reporters chosen according to their qualifications and the recommendations of the members of the Permanent Committee.

The final approval of the program and the reporters lies in the hands of the Organizing Committee. Your Chairman recommends that the members of the Organizing Committee carefully consider all subjects of the program and make such recommendations as they deem advisable for the best interest of the Congress. Likewise, it is within the scope of the Organizing Committee to eliminate or make substitutions for any of the reporters named at the Paris meeting. The program and the reporters named on the various subjects are herewith attached and it is hoped that every member of the Organizing Committee will give this matter his careful and thorough consideration.

Upon the adoption of the program and the selection of the reporters for the respective subjects, the Organizing Committee will be called upon to inform the reporters of their selection. At the same time, detailed information will be sent to the reporters, as to the requirements for the discussion of the subject, the limitation of the text material, the furnishing of abstracts, and the time-limit required for presenting their reports for publication, translations, etc. Your Chairman further suggests that in this notification the reporters be requested to express themselves as to whether they expect to attend the Congress. This is of great importance as it is highly desirable

that at least a large proportion of the chosen reporters present their reports in person, and while the selection of the reporters has been made with this in mind, there is a great possibility that at least some of the reporters chosen might not find it possible to attend the Congress in New York.

Your Chairman is very glad to report that, as a result of his conversation with leading veterinarians of various countries during his two recent trips abroad, he found extraordinary interest manifested in the coming Congress to be held in the United States, and not only a willingness but a great desire to attend the same. It is hoped that the economic conditions will have improved by that time to such an extent that the participation of foreign colleagues will exceed our expectations.

The work of the Organizing Committee will become heavy, as the Congress should be given the widest publicity. Every veterinary organization in the different countries should be sent an invitation to participate in the Congress. The Organizing Committee should have on its staff at least one experienced person who has been active in the preparations for previous Congresses.

Requests have been received from veterinary journals abroad for publicity material and your Chairman urgently requests the Publicity Committee to give this matter its best attention, in order that widespread propaganda for the Congress be created.

The Committee on Local Arrangements will have to do its share in the preparations for the Congress, providing entertainment and excursions to suit the demands of the attending veterinarians and especially so the foreign representatives.

Your Chairman desires to impress every member of the Organizing Committee, in fact every member of the veterinary profession in the United States, that only by proper coöperation and undivided interest in the Congress will we be in a position to attain success. Our foreign visitors in particular look forward with the greatest anticipation to learning of the activities of the veterinary profession in the United States. We, therefore, must do our utmost with the activities of our institutions and, above all, our undivided hospitality.

Last, but not least, the financial needs of carrying on the Congress must be given urgent and serious consideration. At the meeting of the Organizing Committee at Atlanta, your Chairman presented a budget for the Congress and it was hoped that every effort would be made to collect the necessary funds. Up to the present time, this has been successful only to a very limited extent, and with the short time at our disposal we must exert our utmost effort to secure the necessary finances. Your Treasurer, Dr. Mohler, who has been placed in charge of securing the necessary funds, will do his utmost to obtain the coöperation of the profession, and it is hoped, yes, essential, that veterinarians should come forth with contributions to enable us to carry out our obligations. Let us have the concerted effort of the entire profession of the United States to make the 12th International Veterinary Congress the most successful of all, not only professionally but socially and fraternally.

Respectfully submitted,

(Signed) A. EICHORN, *Chairman*

SECRETARY HOSKINS: I move the acceptance of this report and its reference to the Executive Board.

. . . The motion was duly seconded, voted upon and carried. . . .

PRESIDENT WILLIAMS: The next subject on the program is a paper, "Economic Aspects of Veterinary Medicine," by Dr. John R. Mohler, Chief, U. S. Bureau of Animal Industry, Washington, D. C.

DR. MOHLER: Mr. President, Fellow Veterinarians, and Friends: I am certainly very glad to be here this afternoon and to address such an important body of veterinarians as are assembled here at this time. When your Secretary invited me to take part in this program, several weeks ago, I gladly accepted and sent to him the address which the President has just announced.

My purpose this afternoon is to explore with you some of the economic fields of our profession, with the hope that we may find some open pathways by which we will regain the highway to better times. I fully realize that you have been very busy for the last four days and I further realize that we are rather behind in our program, so if you will bear with me for fifteen minutes, I will assure you that I will be through.

. . . Dr. Mohler then read his paper, which was published in the September JOURNAL, pp. 318-324. . . .

PRESIDENT WILLIAMS: You have just listened to a very splendid address on a pertinent subject by Dr. John R. Mohler, whom we have learned to love and to respect, and those two human attitudes are not confined to the veterinary profession.

It was especially pleasing to me, two years ago, when I was attending a meeting of one of the largest cattle raisers' associations in America, to hear one of the foremost attorneys of the Southwest conclude his address by stating that "Dr. Mohler: gentleman, scientist, executive, diplomat," was the outstanding character in the national life of our time. That was the tribute of the live stock industry to our Dr. John R. Mohler. (Applause.)

We are now ready for the report of the Committee on Budget. That report will be submitted by Dr. Hoskins.

. . . Secretary Hoskins read the report. . . .

Report of the Committee on Budget

MR. PRESIDENT AND MEMBERS:

The Committee on Budget recommends that the following amounts be appropriated for the purposes indicated, for the ensuing year:

President's contingent fund.....	\$ 500
Treasurer's contingent fund.....	300
Horse Association of America.....	50
Publicity work	300
Committee on Agricultural Extension Service.....	100
Committee on Bang's Disease.....	100
Committee on Education.....	1,000
Committee on History.....	500

Committee on Legislation.....	1,000
Committee on Policy.....	100
Committee on Poultry Diseases.....	50
Committee on Program.....	300
Committee on Proprietary Pharmaceuticals.....	400
Committee on Veterinary Biologics.....	100
Committee on NRA.....	500

Total\$5,300

Respectfully submitted,

(Signed) N. F. WILLIAMS, *Chairman*

(Signed) M. JACOB

(Signed) R. S. MACKELLAR

(Signed) H. PRESTON HOSKINS

ROBERT J. FOSTER

SECRETARY HOSKINS: I move the adoption of this report.

. . . The motion was duly seconded, voted upon and carried. . . .

PRESIDENT WILLIAMS: We will proceed at once to the report of the Executive Board, which will be presented by Dr. Hoskins.

Report of the Executive Board

SECRETARY HOSKIN: The Executive Board recommends that the Association approve the appointment of a special committee of the Board to study the NIRA, as it affects veterinarians, and to provide for representation of the A. V. M. A. at hearings on any national codes that involve veterinarians, and that a sufficient appropriation be made to cover the expenses of this committee.

DR. MAYO: I move that this recommendation of the Executive board be approved.

. . . The motion was duly seconded, voted upon and carried. . . .

SECRETARY HOSKINS: The Executive Board recommends that the Association expel Dr. W. J. Walsh, of Creston, Iowa, and Dr. L. R. Smith, of Sioux City, Iowa, from membership in the Association.

DR. KINSLEY: I move the adoption of the recommendation.

. . . The motion was duly seconded, voted upon and carried. . . .

Report on the Committee on Resolutions

PRESIDENT WILLIAMS: The next on the program is the report of the Resolutions Committee. We will receive that report.

. . . The report of the Committee on Resolutions was presented by Dr. L. Enos Day, acting chairman of the Committee.

RESOLUTION

Be it resolved, That the American Veterinary Medical Association, in session at its seventieth annual meeting, extend expression of appreciation and thanks to all who have made attendance at this meeting enjoyable and profitable; to Illinois veterinarians who have contributed materially to the success of the meeting; to the commercial firms who have participated; to the Committee on Local Arrangements for their thoughtful attention to all essential details that have made the session a delightful experience; and also to the management of the Palmer House for the many courtesies extended to members of the veterinary profession and their friends.

DR. QUITMAN: I move the adoption of the report.

. . . The motion was duly seconded, voted upon and carried. . . .

PRESIDENT WILLIAMS: The Chair recognizes Dr. Fitch.

DR. FITCH: The veterinary medical profession, through its well-defined agencies in education and research, has endeavored, and is succeeding, to meet the needs of those engaged in the various fields coming within the scope of its practical and professional responsibility. There is no field more vital to human welfare than the safeguarding of our food supply.

It has been extremely gratifying to the membership of this Association to note the recognition and evidence of appreciation for professional veterinary service as it is being rendered in the various and more or less closely related fields. In this connection, no finer tribute could be extended to this profession than is being shown by many throughout the nation, especially of the medical profession, who are delegated with the responsibility of administering the work of public health departments. Conspicuous among those who have manifested a full appreciation of veterinary medical service in directing the affairs of their respective departments should be included the names of Dr. Joseph F. Bredeck, Commissioner of Health for the City of Saint Louis, Missouri, Dr. H. H. Shaw, Health Commissioner of Utica, New York, and Dr. John P. Koehler, Health Commissioner of Milwaukee, Wisconsin. These officials have delegated the responsibility of municipal food control to well-trained members of the veterinary profession, and their achievements have fully justified this course of procedure. These directors of public health have established a program in municipal government which others might well adopt.

As an evidence of appreciation on the part of our membership, I move, Mr. President, that this Association go on record as commending the work of Drs. Joseph F. Bredeck, H. H. Shaw

and John P. Koehler, especially as it applies to the selection of trained officials for the sanitary supervision of public food supplies.

. . . The motion was duly seconded, voted upon and carried. . . .

Report of the Executive Board

PRESIDENT WILLIAMS: We have a further report from the Executive Board.

DR. R. S. MACKELLAR: Mr. President and Members: It gives me great pleasure, as chairman of the Board, to state that the Board unanimously recommends the reëmployment of Dr. H. Preston Hoskins as Secretary-Editor of this Association for the year commencing January 1, 1934.

DR. QUITMAN: I move the adoption of that recommendation. . . . The motion was duly seconded, voted upon and carried. . . .

PRESIDENT WILLIAMS: That brings us to unfinished business. Is there any unfinished business?

SECRETARY HOSKINS: There is none.

DR. SIGLER: I would like to recommend to the Executive Board that Dr. Kinsley's paper, "A Century of Hog Cholera," be published at the earliest possible date. I would like every veterinarian to study that paper, think it over, and urge the adoption of the reforms contained therein to the Bureau of Animal Industry.

DR. MAYO: It seems to me that the publication of a paper of this kind should be left to the Secretary-Editor. It will be published in the JOURNAL, and I am sure that the Secretary-Editor will use every endeavor to get the important papers out as quickly as possible.

PRESIDENT WILLIAMS: The suggestion is that the Executive Board make the recommendations that are therein contained, to the U. S. Bureau of Animal Industry.

DR. SIGLER: That is my idea.

Installation of Officers

PRESIDENT WILLIAM: We have now reached that point where the old gives way to the new, and at this juncture I wish to thank all of the committees, all of the officials of this Association, and every member of the Association, for the help that they have given in aiding the Association to whatever success it has

attained. It is encouraging to your officers when the rank and file fall in line in support of the various activities that have been felt best for your welfare. I am pleased to say that perfect harmony has existed throughout the official family, and if there were any disturbances of a serious character, or objections from the field, they have not reached those officials.

It is with pleasure that I request Drs. Koen and Sigler to escort the President-elect, Dr. C. P. Fitch, to the chair. (Applause.)

Dr. Fitch, it is with a great deal of pleasure that I hand to you this mallet of authority, with all of the responsibilities implied, because I know they are placed in safe hands. It has been one of the greatest privileges of my life to have worked and labored with you. Accept my personal thanks for the assistance that you have rendered me. (Applause.)

PRESIDENT FITCH: One would indeed be very callous if he were not deeply appreciative of the honor of being elected to the presidency of the largest veterinary organization in the world. There are times, of course, when words cannot express the feeling which is back of them. This is one of the occasions in my life.

Veterinary medicine, as Dr. Mohler has just told you, is going through an economic readjustment. There has not been any time, in my judgment, when the veterinary profession has, in popular vernacular, been placed "on the spot" more than at the present. The coming year is going to be a critical one. Who can foresee what will occur in the interim between this meeting and the one which will occur at New York? We need to put our shoulders to the wheel; we need to take up our cudgels and defend the profession which we represent.

Your president can do but very little. He relies upon the membership, and I know that that support will be given. My efforts, what little they are, will be devoted to aiding the veterinary profession, not only in this country but in all countries of the globe. I am deeply thankful to you for this honor which has been given me. (Applause.)

I will appoint Dr. Miller and Dr. Ackerman to escort Dr. W. E. Cotton, our First Vice-President, to the platform. (Applause.)

DR. COTTON: Fellow-Members, I can hardly tell you how much I appreciate this unexpected honor—an honor so very much unexpected—that has been conferred upon me, and I want to thank you all from the bottom of my heart. (Applause.)

PRESIDENT FITCH: Dr. Dick does not appear to be in the room.

Dr. Hollingworth was obliged to return home. I will appoint Dr. Morgan and Dr. Quitman to escort Dr. S. W. Haigler to the platform. (Applause.)

DR. HAIGLER: Gentlemen, I want to thank you for this unexpected honor. I will try to merit your confidence. (Applause.)

PRESIDENT FITCH: Is Mayor Van Tuyl in the room? (Absent.)

It seems to me rather ridiculous to appoint an escorting committee for our well-known Treasurer, so I am going to ask Dr. Jacob if he will come to the platform and acknowledge the honor which has been paid him. (Applause.) You should know that this is the sixteenth year that Dr. Jacob is to serve us so faithfully.

DR. JACOB: Mr. Chairman and Gentlemen: I appreciate very much indeed this evidence of your confidence. I sincerely hope that the sea of finance will be just a little smoother during the coming year than it has been during the past. At any rate, I shall do my best to serve you in an acceptable manner.

PRESIDENT FITCH: Our Secretary, Dr. Hoskins, has an announcement to make.

SECRETARY HOSKINS: Dr. Robert S. MacKellar was chosen unanimously to succeed himself as chairman of the Executive Board for the ensuing year. (Applause.)

PRESIDENT FITCH: Is there any other business to come before the Association at this time?

DR. J. C. FLYNN: We have just closed another year of activity in this great organization, and through that year we have been led by a man who has given freely of his time and his efforts, and I think the least that we can do to show our appreciation is to give him a rising vote of thanks for his untiring efforts in our behalf. I refer to our late president, Dr. N. F. Williams, and I move the adoption of this resolution.

DR. QUITMAN: I second the motion.

. . . Dr. Williams was given a rising vote of appreciation . . .

PRESIDENT FITCH: Are there any other matters which should come up at this time? If not a motion to adjourn is in order.

DR. SIGLER: I move that we adjourn.

. . . The motion was duly seconded, voted upon and carried. . . .

PRESIDENT FITCH: This, the seventieth annual meeting, is now adjourned.

. . . The meeting adjourned at 4:45 p. m.

ADJOURNMENT

Section on General Practice

WEDNESDAY MORNING, AUGUST 16, 1933

The first session of the Section on General Practice was called to order at 9:20 a. m., by Dr. William H. Ivens, Chairman. (Dr. S. E. Hershey, Secretary.)

CHAIRMAN IVENS: The Section on General Practice of the seventieth annual convention of the American Veterinary Medical Association will now come to order.

The first thing on our program this morning is an address by the Chairman. As you can see by your watches, the time has been used up waiting for the men to gather, and as we have so many good papers I am not going to burden you with a long talk.

The Section on General Practice, as you all know, is the section of practitioners, the backbone of the veterinary profession. We are a bunch of fellows who have to know a lot about some things and something about a lot of things. The practitioner has a great many opportunities that he allows to pass over his head. We will congregate some place and we will talk about what the laboratory man is doing to us, or what the school is doing to us, but we have that opportunity ourselves if we just go ahead and exercise the authority that we have. Without us the research man and the laboratory man, and, in some instances, the school, would be lost.

The program calls for a report by the Secretary, Dr. S. E. Hershey. He informs me that he has no report and there is no speech for him to make. Doctor, would you like to talk to the men for a few moments anyway?

DR. HERSHEY: The Chairman made all of my speech and the former secretary of this Section left nothing of his trade by which I can report; but, as your Chairman said, everything and everybody in the veterinary profession—the school men, the scientific men—depend on you practitioners. The field man is *the* man, so you see that all of the enormous number of veterinarians that there are have to come back to you to get the foundation. For that reason we consider this the most important section of the A. V. M. A., and we want you all to make it your meeting and to coöperate and go home and get every veterinarian in your locality to join the A. V. M. A., because you constitute the backbone of this Association. (Applause.)

The following program was presented:

"Bovine Sterility" (Illustrated), Dr. W. L. Boyd.

"Treatment of Chronic Bovine Endometritis," Dr. Otto Stader.

"Sprain of the Flexor Tendons—Tenonitis or Tendinitis," Dr. W. J. Lee. (Read by Chairman Ivens.)

"Large-Animal Practice in the South," Dr. Hamlet Moore.

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. . . The session adjourned at 11:45 a. m. . . .

RECESS

THURSDAY MORNING, AUGUST 17, 1933

The second session was called to order at 9:25 a. m., by Chairman Ivens.

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The following program was presented:

"Developments Concerning Hog Cholera," Dr. C. H. Stange.

"A Century of Hog Cholera," Dr. A. T. Kinsley.

"Recognition of the Most Important Infectious Diseases of Swine in the United States," Dr. Frank Breed.

"Common Ailments of Sheep," Dr. F. E. Stiles.

"Gas Gangrene and Two Case Reports in Cattle," Dr. C. J. Marshall.

"Measuring Fertility in the Ram," Prof. Fred F. McKenzie and Ralph W. Phillips. (Read by Prof. McKenzie.)

. . . The session adjourned at 12:30 p. m. . . .

ADJOURNMENT

Section on Sanitary Science and Food Hygiene

WEDNESDAY MORNING, AUGUST 16, 1933

The first session of the Section on Sanitary Science and Food Hygiene was called to order at 9:45 a. m., by Dr. W. H. Lytle, Chairman.

CHAIRMAN LYTLE: Gentlemen, the meeting is formally declared open.

I note the Chairman is scheduled to give an address. I have no remarks to make, and the time is short; so we will proceed with the program.

The following program was presented:

"Canine Rabies Experimental Vaccination—(Second and Third Reports)," Drs. M. F. Barnes, A. N. Metcalfe, W. E. Martindale and W. J. Lentz. (Read by Dr. Barnes.)

"Rabies Vaccine Protection Test," Drs. John Reichel and J. E. Schneider. (Read by Dr. Reichel.)

"Intradermal Vaccination; or, the Skin as an Immunological Organ," Dr. C. E. Salsbery.

"A New Method of Immunization Against Anthrax," Drs. A. Eichhorn and B. M. Lyon. (Read by Dr. Lyon.)

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. . . The session adjourned at 12:15 p. m. . . .

RECESS

THURSDAY MORNING, AUGUST 17, 1933

The second session was called to order at 10:20 a. m. by Chairman Lytle.

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The following program was presented:

"Notes on the Experimental Transmission of Bovine Anaplasmosis in Florida," Dr. D. A. Sanders. (Read by title.)

"Some Parasites of Oregon Wild Life," Dr. J. N. Shaw. (Read by Dr. B. T. Simms.)

"Acute Enteritis in Young Pigs Due to Infection with Colon Group," Dr. C. N. McBryde.

"Municipal Food Inspection," Dr. J. S. Koen.

"Contagious Ecthyma (Sore Mouth) of Sheep and Goats," Drs. I. B. Boughton and W. T. Hardy. (Read by Dr. Boughton.)

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. . . The session adjourned at 1:40 p. m. . . .

ADJOURNMENT

Section on Research

WEDNESDAY MORNING, AUGUST 16, 1933

The first session of the Section on Research was called to order at 9:30 a. m., by Dr. C. C. Palmer, Secretary, presiding during the absence of Dr. E. A. Watson.

CHAIRMAN PALMER: Gentlemen, will you please come to

order? We are thirty minutes behind schedule and we have quite a long program. By starting promptly we will be able to finish, provided we limit the papers and discussions to fifteen or twenty minutes. I thought we might make it ten minutes for each paper and ten minutes for the discussion. Of course, if we find that some of our speakers are not present, we can use their time.

I am very sorry to announce that our Chairman, Dr. E. A. Watson, is ill. He sent his coworker, Dr. C. A. Mitchell, but I have been asked to preside, so I will endeavor to act as Chairman.

Your Secretary has very little to report. However, you may be interested in knowing something of the conditions existing throughout this country, as far as research work is concerned. You all know that, in many of our institutions, research work has been seriously crippled because of financial difficulties during the past year. In view of that condition, I expected to encounter a great deal of difficulty in arranging a program for this meeting, but, much to my surprise, plenty of material came in. Evidently, research work has been going on and many problems are nearing completion. Even though the research staffs are suffering from a shortage of funds, they were able to go on with many of the projects enough to be able to report progress. Many of the men reported that, while they were carrying on their research work, funds were so limited that they would be unable to attend meetings or travel, but it was especially gratifying to know that our research work, which, after all, is the basis for progress in veterinary medicine, is going on as well as it is. What the future will bring forth no one knows. Of course, if it is true that this depression is pretty well over and we are on the upgrade, it will not be long until funds for research work will again be available.

For some reason I thought it was going to be an extremely difficult job this year to get men with research reports to Chicago, but I am particularly pleased to report that we were able to secure what we consider a very good program, and I hope that those of you who attend our meeting will be amply repaid for coming.

There has been some criticism about our program and the way the material is arranged. The criticism is that we are covering too much territory. My answer to that is this: You must remember that many of the men are interested in widely different fields and if we were to restrict our reports at these meetings to

one or two fields, it would not meet the appeal of a large group, but by endeavoring to cover a number of the phases of the research field, it does appeal to the larger group. That is why our program material appears to be rather divergent. We will get on with our program now.

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The following papers were presented:

"The Morphology, Culture, Isolation, and Immunity Studies of *Actinomyces Necrophorus* in Calf Diphtheria," Drs. L. H. Scrivner and A. M. Lee. (Read by Dr. Scrivner.)

"Studies of Canine Distemper: IV. Immunization of Dogs by Means of Bacterial Products," Dr. A. S. Schlingman.

"The Bacteriology of Spleens Used in the Preparation of the Laidlaw-Dunkin Canine Distemper Prophylactic," Dr. N. J. Pyle.

"A Tissue Vaccine for Hog Cholera," Dr. W. H. Boynton.

"The Streptococcic Flora of Dairy Barns," Mr. C. S. Bryan.

"The Chemical Character of the Blood and Urine of Colts," Drs. W. W. Dimock and Daniel J. Healy. (Read by title.)

"Results in the Use of Fresh and Oxalated Blood of Swine When Making Cellular Counts and Hemoglobin Determinations," Dr. H. C. H. Kernkamp.

"The Significance of Traumatized Tissue Response to the Ultra-Violet Rays," Dr. N. G. Covington. (Read by title.)

. . . The session adjourned at 12:25 p. m. . . .

RECESS

Section on Poultry

WEDNESDAY MORNING, AUGUST 16, 1933

The first session of the Section on Poultry was called to order at 9:45 a. m. by Dr. H. D. Chamberlain, Chairman. (Dr. F. D. Patterson, Secretary.)

CHAIRMAN CHAMBERLAIN: Gentlemen, I have prepared a few remarks for this occasion.

. . . . Dr. Chamberlain read his address. . . . (See page 444.)

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The following papers were presented:

"Nicotin Sulfate as a Vermifuge for the Removal of Ascarids from Poultry," Dr. William L. Bleecker and R. M. Smith. (Read by Secretary Patterson.)

"Poultry and the Practitioner," Dr. Norman W. Ackerman.

"Some Studies of Infectious Laryngotracheitis—(A Preliminary Report)," Dr. C. A. Brandly. (Read by Dr. Joseph P. Scott.)

"Studies on Fowl-Pox Vaccination," Dr. E. L. Brunett.

"Some Problems in Poultry Nutrition," Prof. H. L. Wilcke.

"Infectious Enterohepatitis of Turkeys," Dr. L. H. Schwarte.

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. . . The session adjourned at 12:30 p. m. . . .

RECESS

Section on Research and Section on Poultry—Joint Session

THURSDAY MORNING, AUGUST 17, 1933

The second session of the Section on Research and the second session of the Section on Poultry were convened as a joint session of the two sections, at 9:30 a. m., Dr. C. C. Palmer, secretary of the Section on Research, presiding.

CHAIRMAN PALMER: Will the meeting please come to order? We have a full program planned for this morning, and it is unfortunate that the chairman of neither of these two sections is present. Therefore, I shall act as Chairman for the present.

* * * *

The following program was presented:

"Studies on Ulcerative Enteritis in Quail," Drs. J. E. Shillinger and L. C. Morley. (Read by Dr. Shillinger.)

"The Cultivation and Egg-Transmission of the Avian Tubercle Bacillus," Dr. H. J. Stafseth, R. J. Biggar, Dr. W. W. Thompson and Lisa Neu. (Read by Dr. Stafseth.)

"The Susceptibility of *Brucella Abortus* and *Salmonella Pullorum* to Disinfectants," Dr. E. C. McCulloch.

"Bacteria as Food for *Oesophagostomum Columbianum* Larvae," Dr. R. E. Rebrassier.

"Familial Incidence of Lymphocytoma in Three Generations of the Domestic Fowl," Dr. R. Fenstermacher.

"A Preliminary Report on Trichomoniasis of Pigeons," Dr. E. F. Waller. (Read by Dr. R. Fenstermacher.)

"A Study of the Comparative Value of Fowl-Pox Virus and Pigeon-Pox Virus Vaccines for Immunization Against Fowl-Pox," Drs. R. E. Lubbehusen and D. P. Ehlers. (Read by title.)

. . . The session adjourned at 12:25 p. m. . . .

ADJOURNMENT

Section on Small Animals

WEDNESDAY MORNING, AUGUST 16, 1933

The first session of the Section on Small Animals was called to order at 9 a. m. by Dr. C. F. Schlotthauer, Chairman.

CHAIRMAN SCHLOTTHAUER: The Section on Small Animals will now be in order. The Secretary, Dr. W. R. McCuistion, I learned yesterday, cannot be with us. In starting this meeting, I will now read my own introductory paper.

. . . Dr. Schlotthauer read his address. . . . (See page 441.)

CHAIRMAN SCHLOTTHAUER: It is really surprising that there is so little coöperation between veterinarians and physicians. I think the small-animal men are more advanced in this respect than the large-animal men. So many veterinarians do not know the physicians in their town or city. Too often, also, the physicians do not have due regard for the ability and knowledge of veterinarians. One of the big reasons for that is that we as veterinarians have not spoken to them about certain conditions and diseases and have never brought them to realize the value of the veterinarian's advice and knowledge.

Therefore, I would say for you to get acquainted with them—with your family doctor, at least.

The Mayo Clinic is one of the few medical institutions in the country that employ veterinarians on their staffs. The Mayo Clinic has two, and that institution for years has recognized the value of veterinary coöperation in medicine.

I think that the veterinarian should turn around and recognize the value of the physician in veterinary medicine.

* * * *

The following program was presented:

"Gastrotomy, Enterotomy and Cystotomy, and Their Indications in the Dog and Cat," Dr. Charles W. Bower.

"Some Observations Relative to Ailments of Inmates in a Zoölogical Collection," Dr. J. A. Campbell.

"The Business Side of Our Profession," Dr. J. C. Flynn.

"Skin-Grafting," Dr. Richard A. Self.

. . . The session adjourned at 1 p. m. . . .

RECESS

THURSDAY MORNING, AUGUST 17, 1933

The second session was called to order at 9 a. m., by Chairman Schlotthauer.

The following papers were presented:

"Further Studies in the Control and Hospitalization of Canine Distemper," Dr. M. L. Morris.

"Some Blood Chemical Findings and Their Interpretations in Diseases of Animals," Drs. J. L. Bollman and C. F. Schlotthauer. (Read by Dr. Carl Olson, Jr.)

"Allergic Reactions in Dogs," Dr. P. W. Burns.

"Open Reduction and Mechanical Devices in Treating Fractures in Small Animals," Dr. Richard A. Self.

. . . The session adjourned at 12:30 p. m. . . .

ADJOURNMENT

Section on Military Medicine

THURSDAY MORNING, AUGUST 17, 1933

The session of the Section on Military Medicine was called to order at 9:40 a. m. by Col. Robert J. Foster, Chairman. (Dr. Carl J. Norden, Secretary.)

CHAIRMAN FOSTER: We are something like the motors—we are a little late. But if we had had horses, we would have been on time. (Laughter.)

The Chairman isn't going to make an address because there isn't much to say. The meeting will start with the papers unless the Secretary has a report to make. If he has not, we will proceed with the papers.

SECRETARY NORDEN: We will pass the report. They can read it in the JOURNAL.

* * * *

The following program was presented:

"Development of the Veterinary Service in the U. S. Army to 1916," Dr. D. M. Campbell.

"Veterinary Service in Action" (Motion pictures), Maj. F. B. Steinkolk.

"Organization and Function of the Veterinary Services in the National Guard," Dr. S. W. Alford. (Read by Secretary Norden.)

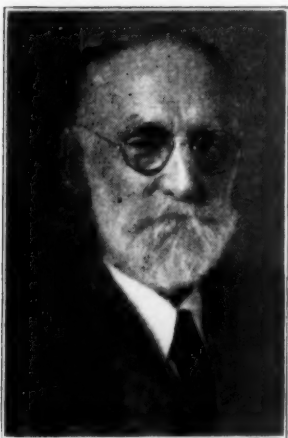
"The Inspection Service of the Veterinary Corps," Maj. Edward M. Curley. (Read by Chairman Foster.)

. . . The session adjourned at 12:30 p. m. . . .

ADJOURNMENT

Presentation of Medals

Undoubtedly, the most interesting feature of the A. V. M. A. banquet at the Palmer House, the evening of August 16, was the presentation of the medals awarded to Drs. Cooper Curtice and



COOPER CURTICE

Fred L. Kilborne in recognition of their pioneer work in veterinary science, particularly their contributions to our knowledge of southern cattle fever and the role of the tick, *Margaropus annulatus*, as a vector of the causative organism, *Babesia bigemina*.

Dr. Curtice was actively engaged with the U. S. Bureau of Animal Industry until about three years ago, having originally entered government service in 1886. His first assignment was the study of animal parasites. This work led to the southern cattle fever problem, in which Dr. Curtice was associated with Drs. D. E. Salmon, Theobald Smith and Fred L. Kilborne. Later assignments included the study of blackhead of turkeys in Rhode Island (1900-1906), tick eradication in the South (1906-1912), study of cattle ticks in San Domingo (1913), foot-and-mouth disease eradication (1914), and the study of stomach-worm control in sheep in Virginia, until his retirement in 1930.

Dr. Curtice received his Bachelor of Science degree from Cornell University in 1877 and his D. V. S. from the Columbia Veterinary College, in New York City, in 1882. Dr. Fred L. Kilborne was a classmate of Dr. Curtice, at Cornell, and also received his bachelor degree (B. Agr.) in 1881. Dr. Kilborne studied veterinary medicine under Dr. James Law while he was an instructor in the laboratories of physiology, zoölogy and botany at Cornell (1880-1885), and received his veterinary degree (D. V. S.) in June, 1885.



FRED L. KILBORNE

From 1885 until 1894, Dr. Kilborne was director of the Veterinary Experiment Station of the U. S. Bureau of Animal Industry at Washington, D. C. From 1895 until 1900 he was in general practice and acted as inspector for the New York State Board of Health in connection with work in bovine tuberculosis. Since 1900 Dr. Kilborne has not been actively identified with veterinary work.

Dr. Kilborne was not present to receive his medal, but Dr. Curtice was on hand and made the following remarks in accepting his award:

Words are inadequate to express my appreciation of this honor. And yet I realize that this presentation is not to me individually but to my teachers, friends and associates, to the federal and state governments, to legislatures that have passed laws needed to correct the sad conditions of cattle, sheep and turkeys due to disease and necessitating public veterinary aid and the coöperation of farmers; and even my personal idiosyncrasies and enemies, leading up to frequent changes that have forced environments, causing improved, unexpected and unpredictable results.

"Lady Luck" has been with me, and with Shakespeare I say, "There's a divinity that shapes our ends, rough-hew them how we will."

I am proud to have been the chosen pioneer in your wise policy of recognizing leading accomplishments of members of the veterinary profession, whose labors have been varied and far-reaching, and in so great a volume that there may be many a "forgotten man."

I trust that the efforts of this Association will advertise to the world how our veterinarians are benefiting the live stock industry and their part in protecting the food, health and wealth of our country.

Again I thank you.

There have been many expressions, since the awarding of medals at Atlanta and Chicago, to the effect that the recognition of distinguished service in the field of veterinary medicine, in some such way as this, is a custom that should be continued by the A. V. M. A. in the years to come.

The Alumni Luncheons

Thirteen college alumni groups got together for their annual repast, on Wednesday, August 16. The total attendance was 470 and the Kansas City Veterinary College had the largest turnout, with 103 in attendance. In this number there were 70 alumni, representing 16 graduating classes and coming from 24 different states.

The twelve other groups reported their attendance figures as follows:

Ohio State University.....	74
Chicago Veterinary College.....	56
Cornell University	41

University of Pennsylvania.....	35
McKillip Veterinary College	34
Ontario Veterinary College.....	33
Iowa State College.....	26
Kansas State College	18
New York University.....	17
Colorado Agricultural College.....	15
Michigan State College	14
Washington State College	4

CONVENTION NOTES

Wisconsin's delegation numbered forty-seven: Drs. J. R. Barry, Wonewoc; B. A. Beach, James S. Healy, V. S. Larson and Walter Wisnicky, Madison; A. E. Behnke and E. B. Bennett, Milwaukee; John R. Berggren, Baldwin; Arthur Boesewetter, Jackson; A. M. Casper, Wauwatosa; C. R. Curtis, Portage; Ralph Dettman and J. B. Klug, Random Lake; Henry F. Eckert, Markesan; John Ehlenfeldt, Waterloo; R. C. Evans, Racine; T. H. Ferguson, Lake Geneva; H. J. Fiege, Kenosha; G. A. Gettleman, Hartford; C. M. Heth, La Crosse; C. B. Hillenbrand, German-town; A. V. Hollister, Clinton; W. L. Horn, Valders; E. C. Humke, Sturgeon Bay; O. N. Johnson and William Madson, Appleton; A. H. Junge, Reedsville; T. L. Knapstein, Greenville; Arthur J. Knilians, Janesville; J. L. Lehman, Edgar; J. E. Lillesand, Verona; A. R. Madson, Mishicot; E. C. Nash, Arcadia; W. F. Nolechek, Thorp; Sobey Okuyama, Genesee Depot; O. S. Phelps, Beaver Dam; William E. Popelars, Weyauwega; F. A. Reynolds, Genoa City; W. L. Richards, Morrisonville; J. F. Roub, Monroe; A. B. Russell, Beloit; W. F. Schwiesow, Ripon; Frank W. Sutcliffe, Mount Horeb; R. U. Taylor, Oshkosh; C. F. Van de Sand, Kiel; W. R. Wastrack, Cedarburg; H. F. Zingg, New Glarus.

A splendid representation, sixty-one in number, placed the name of *Ohio* high among the states. Those from the Buckeye State were: Drs. O. C. Alspach, Marion; F. E. Anderson, Findlay; L. P. Bailey, Piqua; C. H. Case and C. D. Barrett, Akron; O. V. Brumley, Leonard W. Goos, James D. Grossman, Major F. L. Holycross, Drs. J. W. Jackman, W. H. McKenzie, Howard W. Miller, R. E. Rebrassier and Kenneth F. Smith, Columbus; E. W. Brumter, Alliance; John W. Burke, Dayton; F. R. Butz, O. L. Sutton and A. R. Theobald, Cincinnati; Thomas W. Craver, Youngstown; J. V. Crago, Warren; A. H. Dabbelt, Coldwater; G. R. Dannley, Ashland; H. J. Eichhorn, Cardington; J. A. Ellertson, Madison; C. A. Fast, Van Wert; C. W. Fogle, Leipsic;

C. B. Frederick, Canton; George L. Frese and C. W. Cass, Toledo; O. B. Hess and H. D. Sheeran, Fostoria; H. A. Hoopes, La Rue; E. V. Hover, Lima; O. J. Hummon, Lewisburg; J. R. Karr, Coshocton; H. H. Kettler, Milford Center; R. R. Laughlin, South Euclid; J. H. Lenfestey, Lyons; George W. Lies, Fort Recovery; L. C. Lynch, Middletown; C. McCandless, Salem; C. W. McConkey, Napoleon; J. A. McCoy, Washington Court House; W. O. McHugh, Zanesville; Byron P. Merrick, Berlin Heights; George O. Miller, Kenton; H. E. Myers, Lakewood; R. D. Pinkvoss, Camp Dennison; R. R. Powell and Clifford C. Wagner, Cleveland; E. L. Roshon, Sabina; A. C. Schafstall, New Washington; R. S. Smiley, Cromers; C. D. Smith, Massillon; G. V. Spayth, Bloomville; Carl B. Stanley, Belleville; Earl J. Starbuck, Port William; R. D. Stewart, Wren; C. C. Wadsworth, Mansfield; M. A. Wiest, Botkins.

Illinois drew the attendance honors with 181 registrants. Those from Chicago and neighboring towns included: Drs. G. A. Ahrens, H. Alme, F. L. Bartlett, J. S. Bengston, J. R. Brown, D. M. Campbell, Guy D. Chandler, T. B. Crowe, R. H. Crowell, L. Enos Day, Felix von Deschwanden, R. F. Eagle, George P. Frost, George Gordon, A. Hederen, D. R. Herberich, J. T. Hershheim, William C. Holtz, H. Preston Hoskins, B. F. Humphreys, David S. Jaffray, John B. Jaffray, J. M. Kaiser, L. T. Kilfoy, G. B. McKillip, P. J. Meginnis, L. A. Merillat, O. Norling-Christiansen, F. A. Page, C. H. Pals, J. M. Parks, E. L. Quitman, O. P. Sinnerud, G. M. Smith, James A. Sullivan, A. A. Swaim, M. A. Sweeney, R. L. Tinkham, I. Wallman, C. A. Ward and Roy E. Willie, Chicago; A. W. Anderson, R. C. Leininger and C. L. Miller, Oak Park; D. C. Bartlett, Winnetka; C. N. Bramer, Lloyd D. Jones, E. C. Khuen and L. V. Lacroix, Evanston; F. C. Buschbom, Wilmette; George H. Caldwell and Harry Caldwell, Wheaton; C. M. Gwin, Waukegan; W. A. Hahn, Geneva; B. C. Hunt and J. P. Lang, Crystal Lake; A. H. Harmening, Des Plaines; A. M. Mair, Streator; N. S. Mayo, Highland Park; M. J. O'Donnell, Blue Island; E. E. Sweebe, North Chicago; C. Vanderwarf, Chicago Heights; O. G. Wheaton, Naperville; J. H. White, Maywood; Ben W. Wilson, Palatine.

Other parts of the State were represented as follows: Drs. O. Augspurger, B. L. Lake and A. A. Moore, Rockford; Charles Babcock and W. W. Lichty, Woodstock; H. W. Bark, Sandwich; H. C. Barth, Amboy; T. M. Bayler and C. W. McLaughlin, Bloomington; W. A. Beard, Greenview; B. Bennett, Shawneetown; O. E. Blair, Chandlerville; J. G. Blum, Normal; Arthur C. Bolle,

Petersburg; A. E. Bott, East Saint Louis; T. B. Brankin and C. H. Spangler, Joliet; M. D. Brooks, Hebron; J. R. Brown, Jr., Ottawa; Fred H. Burt, Chenoa; S. D. Buzzard, Stewardson; D. A. Cahill and T. J. Foster, Monticello; J. F. Callison, Moweaqua; A. E. Campbell, Rantoul; William J. Cant, Erie; D. L. Cecil, Seymour; L. G. Chalcroft, Grayville; H. D. Chamberlain, Fred Graves and F. A. Shepherd, Belvidere; J. R. Christian, Woodhull; A. J. Coale, Carmi; William L. Coleman, Mount Carroll; G. N. Cunningham, Mount Prospect; Robert F. Curran, Buda; L. M. Darst, Princeton; A. H. Davison, Robert Graham and E. E. Slatter, Urbana; S. R. Dickie, Paw Paw; John Ducey, Richmond; A. J. Erickson, G. H. Hill, Geneseo; A. C. Etchison, Assumption; G. W. Evert, Galena; G. A. Firth, Delavan; C. A. Forbes, Henry; George A. Frank, Highland; E. E. Gieske, Wheeling; F. W. Godsall, Kewanee; B. H. Gray, Windsor; H. M. Gray, Hampshire; G. D. Grogan, Aurora; W. F. Hackney, Marion; A. E. Harding, Morrison; C. E. Harrolle and C. E. Lucas, Olney; J. L. Harvey, LeRoy; O. T. Hart, Saint Joseph; O. T. Hayer, Carthage; J. O. Head, Breese; Hugh Herron, Watseka; George W. Hess and M. E. Wheeler, West McHenry; G. H. Hines, Hume; J. R. Hockenbury, Salem; W. B. Holmes and H. C. Rinehart, Springfield; A. N. Hughes and A. T. Peters, Peoria; George B. Jones, Sidell; V. M. Kaliher, Henry; R. J. Kennedy, Albany; C. J. Kiefer, Walnut; A. R. Kincaid, Stonington; C. W. Lantis, Coatsburg; G. W. Leahy, Decatur; J. W. Lucas, Abingdon; E. A. McAttee, Barry; G. B. Merrick, Forreston; L. W. Moore and W. H. Welch, Lexington; L. N. Morin, McLean; R. O. Nye, Orion; C. L. Passmore, Huntley; F. J. Pilon and H. S. Wooters, Champaign; A. B. Pletsch, McNabb; A. M. Pottinger and J. Pottinger, Peru; J. T. Redman, Danville; D. E. Reece, Rossville; R. C. Riegel, Harrisburg; W. M. Robertson, Gilman; O. T. Rowan, Longview; Ernest S. Sailor, Carthage; W. E. Shumaker, Villa Ridge; E. L. Sidwell, Hardin; James Smellie and G. O. Smith, Eureka; W. R. Spesard, Shelbyville; J. Stotchik, Galesburg; L. B. Swingley, Oregon; A. C. Tillman, Earlville; R. L. Van Sickle, Rock Island; H. G. Wadleigh, Seaton; W. A. Walker, Golconda; F. A. Walters, Lemont; G. D. Warren, Kankakee; C. S. Watt, Collinsville; W. B. Wise, Sheffield; L. B. Woods, Carrollton; F. C. Yabsley, Cissna Park; A. B. Yeager, Lena.

***National Dog Week—October 1-7, 1933.
A Pedigreed Dog in Every Home.***



ABSTRACTS

METAPHEN. I. Results of the use of metaphen in experimental septicemia. R. Gordon Douglas and Konrad E. Birkhaug. Jour. Inf. Dis., liii (1933), 1, p. 55.

The administration of metaphen in artificial septicemias in mice, rats and rabbits induced with type I pneumococcus, *S. hemolyticus*, *S. morsus-muris* and *T. equiperdum* was not beneficial. The administration of metaphen accelerated an early fatal issue, besides inflicting damage on vital tissues, which was induced neither by metaphen nor by the bacteria separately. Attention is called to the fact that artificial septicemia in laboratory animals is not completely analogous to those cases which occur spontaneously. Powerful disinfectants injected into the bloodstream rarely have a bactericidal effect. One must attempt to depress the virulent activity of the bacteria by smaller doses, which are bacteriostatic, and these serve to reinforce the natural defense of the body.

METAPHEN. II. Its experimental valuation as an antiseptic and disinfectant. R. Gordon Douglas and Konrad E. Birkhaug. Jour. Inf. Dis., liii (1933), 1, p. 71.

In vitro experiments have shown that the alkaline aqueous solution of metaphen exercises antiseptic action against type I pneumococcus in dilutions as high as 1:65,000,000, and against *S. hemolyticus* in dilutions as high as 1:130,000,000 with the smooth strain and in those as high as 1:32,000,000 with the rough strain. The phenol coefficient of metaphen against type I pneumococcus is above 667 and against *S. hemolyticus* is 800 with the smooth variant and 200 with the rough variant. Experiments on mice demonstrated that the killing of cultures of type I pneumococcus takes place in less than two minutes in a 1:2,000 dilution of the alkaline aqueous solution of metaphen. A 1:4,000 dilution of metaphen in defibrinated human or rabbit blood fails to check the growth of cultures of *S. hemolyticus* when incubated at 37° C.

THE CALCIUM CONTENT OF DOG TISSUES AND THE INFLUENCE OF THYROPARATHYROIDECTOMY. Frank P. Underhill and Thomas C. Jaleski. *Jour. Biol. Chem.*, ci (1933), 1, p. 11.

Experimental results show that there is no apparent change in the calcium and potassium contents of tissues after thyroparathyroidectomy. There are wide variations in the calcium content of the tissues of the normal and parathyroidectomized animals. The fact that even in the presence of large stores of calcium in the bone and tissues the serum calcium remains low, points to a disturbance of mobilization and absorption functions.

WATER IN THE LUNGS OF DROWNED ANIMALS. Peter V. Karpovich. *Arch. Path.*, xv (1933), 6, p. 828.

Water enters the lungs on drowning, the amount varying from 12.5 to 36.9 cc per kilogram of body weight. Drowning in colored water showed that water may reach any part of the lungs. Blocking of the respiratory passages by water and froth decreases the effectiveness of artificial respiration from 2 to 4 times. The number of inhalations made under water varies from 1 to 9, depending upon the body size, larger animals being able to make more inhalations under water with safety than smaller animals.

A STUDY OF SO-CALLED SKIN LESIONS OF TUBERCULIN REACTING CATTLE. Lyman L. Daines and Harold Austin. *Amer. Rev. Tuber.*, xxvii (1933), 6, p. 600.

Smears taken from skin lesions of tuberculin-reacting cattle and stained by the Ziehl-Neelsen method showed in practically all lesions acid-fast and usually non-acid-fast organisms of different shapes and sizes. Either an acid-fast organism or one that develops acid-fastness can be isolated from the lesions on a modified moist Petroff medium. Typical lesions have resulted in cows by experimental injection of strains of these acid-fast organisms. Fairly characteristic lesions have been produced experimentally by injecting these acid-fast strains into rats, white mice and guinea pigs. Tuberculin tests in guinea pigs have been mostly positive, while in cows the reaction is not constant, varying from negative to suspicious. Internal lesions produced in rats, white mice, guinea pigs and cows resemble more nearly pseudotuberculosis of sheep produced by the Preisz-Nocard bacillus. Organisms similar to one injected into the test animals

have been consistently recovered in culture from the experimental lesions. Chickens have failed to respond in any way to the injection and feeding of the organisms. Identification of the organisms has not been made. It is the opinion of the authors that they are not *Mycobacterium tuberculosis* but in all probability belong to an undescribed species.

HISTOLOGY OF ACUTE HOG CHOLERA. H. Rohrer. Abst. Arch. Path., xv (1933), 6, p. 856.

In the liver the only changes were toxic parenchymatous swelling and occasionally small round-cell infiltration of the interlobular tissue. The kidney revealed tubular parenchymatous degeneration and congestion of the intertubular capillaries. Petechial hemorrhages were seen in the cortex and ecchymoses in the mucosa of the pelvis. If the disease was complicated by secondary bacterial invasion, the renal changes were more marked. In severe uncomplicated infection leading to early death, following the administration of the virus for purposes of immunization, multiple small anemic infarcts were noted in the renal cortex. These, like the small infarcts in the spleen, were due to hyaline thrombosis and necrosis of small vessels. Complete necrosis of the renal cortex was seen occasionally. This was due to thrombosis and necrosis of the arcuate arteries.

A COMPARISON OF THE CELLULAR REACTION IN EXPERIMENTAL TUBERCULOSIS OF THE CORNEA IN ANIMALS OF VARYING RESISTANCE. Esmond R. Long and Sion W. Holley. Amer. Jour. Path., ix (1933), 3, p. 329.

Central interlamellar corneal injections of 0.01 to 0.005 mg of moderately virulent tubercle bacilli of human type were made in a series of normal and tuberculous guinea pigs, and normal rabbits and cats. Animals of each kind were killed at 6 hours, 1, 3 and 14 days, and 1 month, and the nature and extent of the inflammatory response determined by microscopic examination. The first reaction noted at the limbus and not at the site of injection consisted of an outpouring of polymorphonuclear leukocytes from the marginal vessels, most intense in the tuberculous guinea pig (tuberculin reaction), less in the normal guinea pig and less in the rabbit, and least in the cat. Infiltration of leukocytes into the site of injection from the margin was well developed in all animals at 24 hours. After 24 hours, there was an

increased proportion of large mononuclears in the reaction. These cells did not appear to be derived locally. As the mononuclears reached the site of injection, they engulfed the polymorphonuclear leukocytes already there, taking over the tubercle bacilli contained by the latter cells. From 3 to 14 days, the inflammatory reaction progressed most rapidly in the tuberculous guinea pigs, and less rapidly in the normal guinea pigs, rabbits and cats. Ulceration occurred in the tuberculous guinea pigs in two weeks, and those pigs were dropped from the series at this point. At one month, the last period studied, the intensity of the inflammatory reaction, as determined by the size of the lesion and proportion of cornea involved, was greatest in the guinea pig, less in the rabbit and least in the cat. This order is in reverse relation to the general resistance of these animals to the strain of tubercle bacillus used.

THE ORIGIN OF THE EPITHELOID CELL IN EXPERIMENTAL TUBERCULOSIS OF THE CORNEA. Esmond R. Long and Sion W. Holley. *Amer. Jour. Path.*, ix (1933), 3, p. 337.

Infection of the center of the rabbit cornea with tubercle bacilli of human type resulted in a lesion characterized almost solely by polymorphonuclear leukocytes until the arrival of new capillaries, when a rapid replacement of the polymorphonuclear leukocytes by mononuclear phagocytic cells occurred. When two infecting doses were placed in the same cornea, one at the margin near the normal blood supply and one in the normally avascular center the replacement of the polymorphonuclears by the large mononuclears occurred much earlier in the lesion close to the limbus. The mononuclears accounting for this replacement and functioning in the subsequent development of the lesion apparently arose from primitive smaller mononuclear cells present in large numbers in and around the walls of the new capillaries. There is evidence that the source of these cells was the bloodstream. The primitive cells, after accumulating in and around the capillary walls, underwent a progressive transformation by simultaneous increase in size and change of character without mitosis into epithelioid cells.

VACCINATION OF MICE AGAINST BACILLUS ABORTUS. Tage Helms. *Abst. Arch. Path.*, xv (1933), 5, p. 731.

Ingestion of small doses of killed bacilli modified the course of the subsequent infection with living bacilli administered parentally or orally. In vaccinated animals bacteria were recovered

from only the regional lymph-nodes. Very large subcutaneous injections protected some animals against fatal intraperitoneal injections.

STUDIES ON THE SUPRARENAL CORTEX. II. Metabolism, circulation, and blood concentrations during suprarenal insufficiency in the dog. George A. Harrop, Albert Weinstein, Louis J. Soffer and John H. Trescher. *Jour. Exp. Med.*, lviii (1933), 1, p. 1.

Basal oxygen consumption, respiratory quotient, blood-flow, blood-pressure, and the changes in the concentration of the arterial blood were determined in suprarenalectomized dogs, when receiving injections of cortical extract, during suprarenal insufficiency, and during period of recovery brought about by resumption of extract injection. The change in hemoconcentration that occurs is probably due to loss of fluid through the kidneys rather than by increased capillary permeability and loss into the tissues or by loss through the gastrointestinal tract. The loss of fluid from the plasma and tissues explains the symptoms which follow withdrawal of injections of the hormone as well as the fatal outcome.

STUDIES ON THE SUPRARENAL CORTEX. III. Plasma electrolytes and electrolyte excretion during suprarenal insufficiency in the dog. George A. Harrop, Louis J. Soffer, Read Ellsworth and John H. Trescher. *Jour. Exp. Med.*, lviii (1933), 1, p. 17.

A characteristic alteration in the electrolyte structure of the blood-plasma of the suprarenalectomized dog occurs when injections of cortical extract are stopped. This alteration progresses during the course of suprarenal insufficiency, parallel with the hemoconcentration and the loss in weight. When injections of cortical extract are resumed, the animal returns to normal. The change in hemoconcentration is associated with the loss of sodium and chlorid, accompanied by their proper complement of water, by way of the kidney. Since the above changes can be effected solely by cessation of injections of the cortical hormone and reverses upon resumption of injections of this substance, all of the observed phenomena are due to this cause alone. It is concluded that one function of the cortical extract in the suprarenalectomized dog is participation in the regulation of the sodium and chlorid metabolism and, consequently, of the balance and distribution of water. Evidence points to the kidney as the locus of this regulatory function of the cortical hormone.



Regular Army

Major Harry L. Watson is relieved from further assignment and duty with the purchasing and breeding headquarters, Colorado Springs, Colo., and directed to proceed to Fort Sill, Okla., for duty.

Major Charles B. Dunphy is relieved from duty as instructor, Field Artillery School, Fort Sill, Okla., effective in time to proceed to Washington, D. C., and report to the commanding general, Army Medical Center, on or about September 1, 1933, for duty for the purpose of pursuing a course of instruction at the Army Veterinary School.

Second Lieutenant Wesley W. Bertz to the grade of First Lieutenant. Army Medical School, Army Medical Center, Washington, D. C., and assigned to Fort Sam Houston, Texas, for duty.

The promotion of the following-named veterinary officers with rank from August 4, 1933, is announced.

First Lieutenant Stanley M. Nevin to the grade of Captain.

Second Lieutenant Wesley W. Bertz to the grade of First Lieutenant.

Second Lieutenant Edgerton L. Watson to the grade of First Lieutenant.

Veterinary Reserve Corps

New Acceptances

Apt, Samuel2nd Lt..221 S. Cecil St., Philadelphia, Pa.
Galloway, Walter G.....2nd Lt..Route 4, Box 54, Covington, Ind.
Schick, Herman Joe.....2nd Lt..Berthoud, Colo.

Promotions

To

Bark, Hurdman Wesson..1st Lt..Sandwich, Ill.
Pyle, Norman James....Major..Box 255, Pearl River, N. Y.

Transferred

Cole, Francis1st Lt..2622 Lebanon St., El Paso, Texas, to
Aux. Res.

Many of us think of salesmen as people traveling around with sample kits. Instead, we are all salesmen, every day of our lives. We are selling our ideas, our plans, our energies, our enthusiasm to those with whom we come in contact.—CHARLES M. SCHWAB.

***National Dog Week—October 1-7, 1933.
A Pedigreed Dog in Every Home.***



VETERINARY MEDICAL ASSOCIATION OF NEW JERSEY

The forty-ninth semi-annual meeting of the Veterinary Medical Association of New Jersey was held in Atlantic City, July 20-21, 1933. There was a good attendance.

A short business meeting was held on the morning of the first day. The afternoon session was devoted to the presentation of papers. An instructive and highly appreciated lecture was given by Dr. Franklin L. Payne, of the School of Medicine, University of Pennsylvania, on "The Newer Aspects of Human Female Endocrinology." Dr. Payne gave a clear and concise explanation, aided by a series of lantern-slides, of the rôle played by the female sex hormones that originate in the pituitary gland and the ovaries, with respect to the physiological effects in the estrual and menstrual cycles. Dr. Payne's talk was discussed by Drs. Darby, Hopper and Lentz.

Dr. Emlen Wood, of Philadelphia, presented an unusually interesting paper on "Historic Veterinary Books." This paper represented the results of a great deal of library research and supplied valuable sidelights on the antiquity of veterinary medicine. Dr. Wood's paper was ably discussed by Dr. John B. Hopper. It will be published in the JOURNAL.

The final paper of the afternoon was on "Heart Worms in Dogs," by Dr. Charles S. Chase, of Bay Shore, N. Y. This excellent and comprehensive discussion gave an up-to-date résumé of the available knowledge of the various worms that infest the circulatory system of dogs, particularly *Filaria immitis*. Dr. Chase exhibited a number of museum specimens and photographs to illustrate his talk.

The discussion of this subject was opened by Dr. J. A. S. Millar, of Deal, and proved to be unusually interesting. It dealt principally with the therapeutic problems involved and emphasized the need for caution in the use of some of the newly developed drugs that are recommended for killing heart worms. The paper was followed by a clinical demonstration on a dog having *Filaria*

immitis infestation, the larvæ being demonstrated by microscopic examination of blood-smears.

At 7 p. m., an excellent shore dinner, especially arranged by the Local Committee, was served to the members and their wives and to the Association guests and visitors. This dinner was something of an innovation for the summer meeting, and it proved to be such an enjoyable affair that it is recommended for the consideration of local committees in the future.

The program for the second day was varied and excellent. Dr. F. W. Cruickshanks, of Hagerstown, Md., presented a splendid paper on "Botulism." Dr. Cruickshanks has had wide experience in treating botulism, particularly in horses, and his paper brought forth much discussion. He stressed the difference between botulism and equine encephalomyelitis, and reported good results from the use of botulinus antitoxin in alleviating some of the symptoms of the former and bringing about practically complete recovery in cases treated early. Discussion of the paper was opened by Dr. E. R. Cushing and was participated in by Drs. Ten Broeck, Hendershott, and others.

"Veterinary Problems in Wild-Life Administration" was the topic of an able and interesting talk by Dr. J. E. Shillinger, of the Bureau of Biological Survey, Washington, D. C. This talk brought out the tremendous problems that must be faced in conserving our wild life, particularly against the ravages of disease that range from virus disease to lead-poisoning, the latter constituting a man-made menace to hundreds of thousands of ducks on our lakes and bays where ducks, in feeding on the bottom, ingest numbers of lead shot. Dr. Louis Goldberg opened the discussion.

Dr. J. B. Engle, of Summit, next showed several excellent moving-picture reels that had been taken of operations and of cases in his small-animal hospital. The operations included ovariectomy and cesarean section. Cases of rabies and partial paralysis were shown also. These motion pictures were exceptionally well made and the portrayal of cases and operations was thorough and clear. Dr. H. C. Millar opened the discussion.

Dr. F. R. Beaudette, of the College of Agriculture, New Brunswick, gave a comprehensive discussion on "Infectious Laryngo-tracheitis in Poultry," and described the development and application of the vaccine that he has developed to control the disease.

A small-animal clinic was then conducted, in which operations for perineal hernia, cesarean section, oöphorectomy and correction of ear carriage were demonstrated.

Because of special plans for the Fiftieth Anniversary meeting in 1934, the selection of a place for the next annual meeting was left to the Executive Committee.

J. G. HARDENBERGH, *Secretary*.

SOUTHEAST KANSAS VETERINARY MEDICAL SOCIETY

The first annual summer clinic of the Southeast Kansas Veterinary Medical Society was held at Iola, August 8, 1933, with about sixty veterinarians from Kansas and adjoining states in attendance.

Dr. Edward R. Frank, of Kansas State College, gave a number of practical demonstrations on large animals. Dr. Charles W. Bower, of Topeka, conducted the work in the small-animal clinic. Dr. Arthur Trickett, of Kansas City, Mo., was in charge of the question-box, which created considerable interest. Dr. C. A. Brandly, of Kansas State College, spoke interestingly on post-mortem findings in poultry diseases. The outstanding features of the clinic were the wealth of clinical material available and the active part taken in the discussions by all the veterinarians present.

A basket dinner was held at the residence of Dr. Kent R. Dudley, of Iola. This was followed by an interesting program and an address by Dr. J. H. Weiner, of Kansas City, Mo., on "The Importance of Blood Chemistry to the Veterinarian."

L. F. BARTHELME, *Secretary*.

STATE BOARD EXAMINATION

Nebraska Bureau of Examining Boards. State House, Lincoln, Neb. State veterinary examination, November 15-16, 1933. Applications must be on file at Bureau 15 days prior to examination. Mrs. Clark Perkins, Director, Bureau of Examining Boards, State House, Lincoln, Neb.

The breed of cattle most favored in Denmark is the Danish Red. The Holstein Friesian is popular, and to a lesser degree the Jersey.

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NECROLOGY



C. W. EDDY

Dr. C. W. Eddy, of Cleveland, Ohio, died August 13, 1933, after a brief illness of about three weeks, caused by a heart attack.

Born in Cleveland, September 12, 1871, Dr. Eddy received his early education in the public schools and later entered Ohio State University for the study of veterinary medicine. Immediately upon his graduation, in 1900, Dr. Eddy entered practice in Cleveland with the late Dr. A. S. Cooley. He continued in practice for about five years.

On April 15, 1905, Dr. Eddy entered the employ of the City of Cleveland as chief of meat and dairy inspection. He remained in this work until January 12, 1916, and many of the ordinances providing for the inspection of milk and meat in Cleveland were formulated by Dr. Eddy and put into operation during his régime. Upon discontinuing municipal work, Dr. Eddy entered the employ of the Telling Belle Vernon Company, of Cleveland, and had charge of their herd producing certified milk, for a number of years. Dr. Eddy then went to Cuba and took charge of a large dairy at Guanajay, belonging to the Ward Baking Company. He remained in Cuba for about a year and then went to Lakeland, Fla., where he was in charge of municipal food inspection.

In 1927, Dr. Eddy accepted a position as veterinarian to the Detroit Creamery Company, at Detroit, Mich., and had the veterinary supervision of about 600 horses used by the concern. About two years ago, Dr. Eddy returned to his home town of Cleveland and built a modern veterinary hospital at Shaker Heights, a suburb, where he was carrying on a general practice when his fatal illness occurred.

Dr. Eddy joined the A. V. M. A. in 1920 and served as a member of the Special Committee on Dairy Farm Inspection, 1927-29. He was a member of the Committee on Local Arrangements for the Detroit convention in 1929. While located at Detroit, Dr. Eddy took a very deep interest in the Southeastern Michigan Veterinary Medical Association and served one term as presi-

dent. He was a member of the Ohio State Veterinary Medical Association.

G. R. FLOWERS

Dr. G. R. Flowers, of Dallas, Texas, died August 2, 1933, after an operation at Saint Paul's Sanatorium.

Born at Ridgeway, N. Y., Dr. Flowers was a graduate of Yates Academy, Yates, N. Y., and the Chicago Veterinary College. He was valedictorian of his class (1894) at the latter institution. For a few years he practiced at Kimmunity, Ill., later moving to Dallas, Texas, where he became associated with a brother, Dr. A. E. Flowers (Chi. '95). They enjoyed a very extensive practice for a number of years, having been two of the first graduate veterinarians to enter practice in Texas. The two brothers were the owners of the Flower Dale Farm at Dallas and were the largest breeders of Tamworth and Hampshire hogs in the Southwest. They also owned and trained a large string of race horses for many years.

Funeral services were conducted at Dallas and interment was at the old family burial ground at Lyndonville, N. Y. Surviving are the widow, one son, two sisters and three brothers.

R. G. F.

GUNERIUS MONT PEDERSON

Dr. G. M. Pederson, of Hamler, Ohio, died at his home, August 28, 1933. In January he suffered from an attack of pneumonia, from which he never fully recovered. An abdominal tumor was the immediate cause of death.

Born in Minnesota, November 25, 1874, the eldest son of Norwegian parents, Dr. Pederson gained considerable fame as an acrobat with the Barnum and Bailey circus. With the money he made in this vocation, he put himself through the Chicago Veterinary College. Shortly after his graduation, in 1912, he located at Hamler, Ohio, and remained there until his death.

Dr. Pederson joined the A. V. M. A. in 1912. He was a member of the Ohio State Veterinary Medical Association and the Northwestern Ohio Veterinary Medical Association. He was a Mason and an Odd Fellow. Surviving him are his widow and three brothers.

C. W. F.

EDGAR H. SHEPARD

Dr. Edgar H. Shepard, of Cleveland, Ohio, died at his home, September 4, 1933, at the age of 74, after a short illness. He had retired from active practice about ten years ago.

Following his graduation from the Ontario Veterinary College in 1888, Dr. Shepard located in Geneva, Ohio, later removing to Cleveland, where he built up one of the largest practices in that part of the country. Following his retirement, he had engaged in the insurance business.

Dr. Shepard joined the A. V. M. A. in 1896 and took a prominent part in the affairs of the organization for two decades. He served as a member of the Committee on Army Legislation (1903-04); member (1905-06) and chairman (1911-12) of the Executive Committee; member of the Committee on Association of Faculties (1907-08); member of the Committee on Revision of By-laws (1908-09); resident secretary for Ohio (1910-11); and member (1912-15) and chairman (1920-21) of the Committee on Resolutions. In 1905, when the A. V. M. A. met in Cleveland, he was elected third vice-president.

The same year that Dr. Shepard located in Ohio he joined the Ohio State Veterinary Medical Association. He served two terms (1896-98) as president and was placed on the Honor Roll of the Association in 1913, upon the completion of twenty-five years of membership. He was prominent in Masonic circles.

Dr. Shepard is survived by his widow. Burial was at Geneva.

WILFRED J. TORRANCE

Dr. Wilfred J. Torrance, of Cleveland, Ohio, died September 9, 1933, at the age of 70. He had been ill for about a year.

Following his graduation from the Montreal Veterinary College, in 1887, he located in Cleveland and practiced there until about six years ago. He specialized in the treatment of lameness in race horses.

Dr. Torrance was a member of the Ohio State Veterinary Medical Association.

E. D. BARNSDALE

E. D. Barnsdale, a non-graduate veterinarian, died September 20, 1933, at the age of 83 years. He had practiced in the vicinity of Blissfield, Mich., for nearly 60 years. He is survived by his widow and one daughter.

E. C. W. S.

WILLIAM JACOB MARTIN

Dr. W. J. Martin died suddenly at Pottsville, Pa., July 18, 1933. A victim of bronchial asthma for several years, he suffered an acute attack during the last few weeks, but nevertheless his death was wholly unexpected and came as a severe shock to his family and his many friends, both in and out of the profession.

Born at Pottsville, Pa., November 13, 1893, Dr. Martin attended local grade and high schools before entering the University of Pennsylvania. Following his graduation, in 1918, he returned to Pottsville to practice. For several years he was with the Pennsylvania Bureau of Animal Industry. More recently he was in practice at Oley, Pa., and was about to assume the position of Chief Veterinarian for the Reading Coal and Iron Company, to which he had just been appointed, when his fatal illness occurred.

Dr. Martin joined the A. V. M. A. in 1919. In 1931 he was elected president of the University of Pennsylvania Veterinary Alumni Association.

The loss of this outstanding veterinarian, who shared in the respect and admiration of all of his associates and who was dearly beloved by his myriad of friends, comes as a blow to all of us and we are united in expressing our deepest, heartfelt sympathy to his daughter, Elsie Mae, who had been bereft of her mother ten years ago. Interment was at Pottsville, accompanied by Masonic rites and those of the American Legion.

A. H. C.

JOSEPH A. TROUTWYLER ;

Dr. Joseph A. Troutwyler, of Roselle, N. J., died in a local hospital, September 3, 1933, following an operation.

Born in Laufenburg, Switzerland, February 27, 1867, Dr. Troutwyler received his early education in Berne. His veterinary training was received at the University of Zurich, from which he was graduated in 1889. He came to America in 1892 and was a resident of New Jersey continuously until his death.

Dr. Troutwyler joined the A. V. M. A. in 1924. He was president of the Board of Health of Roselle, N. J., and veterinarian to the Board of Health of Millburn, N. J. Surviving him are his widow and a daughter by a former marriage.

Our sympathy goes out to Dr. R. S. Smiley, of Columbus, Ohio, in the death of his wife on July 22, 1933. Pneumonia was the immediate cause of death.

A. I. KULP

Dr. A. I. Kulp, of Silver Lake, Ind., died at his home, September 1, 1933, after a prolonged illness. He was 54 years of age. The immediate cause of death was Bright's disease.

A native of Ohio, Dr. Kulp secured his veterinary education at Iowa State College. Following his graduation in 1909, he located at Adel, Iowa, where he built up a very lucrative practice. He remained there until 1923 when he removed to Silver Lake, Ind.

Dr. Kulp joined the A. V. M. A. in 1912. At the time of his death, Dr. Kulp was president of the Lake Township Farm Board. He is survived by his widow (née Anna Hay), two sisters and one brother.

PERSONALS

MARRIAGES

DR. LEO H. HARTMAN (O. S. U. '31), to Miss Julia Kerris, both of East Liverpool, Ohio, at East Liverpool, Ohio.

DR. JOHN F. MCCLURE (O. S. U. '31), of Hyattsville, Md., to Miss Bettye Anne Conser, of Baltimore, Md., August 27, 1933, at Baltimore, Md.

DR. GEORGE W. ANDREE (Mich. '29) to Miss Marie Johnson, both of Rensselaer, Ind., September 2, 1933, at Rensselaer, Ind.

PERSONALS

DR. M. W. SCOTHORN (O. S. U. '33) is practicing at Ashville, Ohio.

DR. MARVIN THORPE (Wash. '33) has located at Estelline, S. Dak., for general practice.

DR. ED EVERETT (A. P. I. '22), formerly located at Leesburg, Fla., is now in Tampa, same state.

DR. JOHN N. MCILNAY (K. S. C. '28) changed locations September 1, from Lincoln to Omaha, Neb.

DR. PAUL WHITE (O. S. U. '33) is associated with Dr. C. F. Stout (Ind. '09), of Indianapolis, Ind.

DR. FORREST MCCLEAD (O. S. U. '33) has taken over the practice of Dr. C. A. Masten (Ind. '15) at Coatesville, Ind.

DR. F. J. YOUNGLOVE (McK. '16), formerly of Bemidji, Minn., has located at Portage, Wis., for general practice.

DR. CHARLES F. RUNNELLS (O. S. U. '30), formerly of Newark, Ohio, is now practicing at Washington Court House, Ohio.

DR. F. H. SCHNEIDER (Natl. '96), of Philadelphia, Pa., recently was elected a member of the Union League of that city.

DR. LOYAL L. RUSH (K. S. C. '33) received his degree at the Summer School commencement of Kansas State College, August 4.

DR. C. E. LUCAS (Chi. '09), who has been in the employ of the Illinois Department of Agriculture, has resumed private practice at Olney, Ill.

DR. WAYNE O. KESTER (K. S. C. '31), formerly associated with Drs. Case and Planz, of Akron, Ohio, is now located at Fort Hayes, Ohio.

DR. E. P. JOHNSON (Mich. '25), of the Virginia Polytechnic Institute, will work for a Ph.D. degree at the University of Virginia this year.

DR. W. W. BAILEY (Iowa '29), formerly of the staff of the New Jersey Bureau of Animal Industry, has entered general practice at Sussex, N. J.

DR. HENRY VAN ROEKEL (Iowa '25), of Massachusetts State College, has returned to New Haven, Conn., for his postgraduate studies at Yale University.

DR. L. B. FORD (Ont. '16), of Swanton, Ohio, has been appointed local milk inspector, in connection with the new milk ordinance adopted by the village.

DR. O. B. NEELY (Iowa '24), of Union City, Tenn., recently let a contract for the construction of a new residence at the corner of Ury and Vine Streets.

DR. S. M. FRIEDLEY (Ind. '17) has located at Royerton, Ind., for general practice. Until recently, he was connected with the Indiana State Live Stock Sanitary Board.

DR. V. L. BRUNS (Colo. '23) has been transferred from Live Oak, Fla., to Williston, same state, on hog cholera control, with the Florida State Live Stock Sanitary Board.

DR. E. R. BRAUN (Wash. '29), formerly at the Napa State Farm, Yountsville, Calif., is now associated with Dr. P. H. Browning (N. Y. C. V. S. '91-Chi. '03), at San Jose, Calif.

DR. W. N. ARMSTRONG (Ont. '94), of Concord, Mich., was reelected president of the Jackson County (Mich.) Druggists Association at the annual meeting held recently at Parma.

DR. FRANCIS B. LAMBIE (Ont. '03), of Midland, Mich., addressed the local Caravan Club, at the meeting held July 28. His subject was "The Development of the Veterinary Profession."

DR. H. W. SAWYER (A. P. I. '32) who practiced in Daytona Beach, Fla., the past year, has been appointed assistant professor of veterinary medicine at the Alabama Polytechnic Institute.

DR. M. JACOB (U. P. '99), of Knoxville, Tenn., is president of the Tennessee Valley Agricultural and Industrial Fair, which held its 18th annual exposition at Knoxville, September 18-23.

DR. E. N. STOUT (Amer. '91), who has been stationed at Denver, Colo., in the B. A. I. service, has been appointed Extension Veterinarian at the Colorado Agricultural College, Fort Collins, Colo.

DR. THOMAS MOORE (Ont. '29), of Toronto, Ont., is temporarily attached to the Pathological Division, Health of Animals Branch, Dominion Department of Agriculture, at Hull, Quebec.

DR. E. L. STUBBS (U. P. '11), professor of veterinary pathology at the University of Pennsylvania, presented a paper at the International Poultry Congress, held at Rome, Italy, September 6-15.

DR. G. G. ADAMS (Chi. '09), formerly of East Troy, Wis., who has been in the employ of the Wisconsin Department of Agriculture and Markets, has located at Union Grove, Wis., for general practice.

DR. J. C. GILL (McK. '04), of Clarksville, Tenn., has converted his former residence into a hospital for small animals. An Austin coupe has been equipped as an ambulance for use in connection with the hospital.

DR. G. B. MERRICK (O. S. U. '31), formerly of Shannon, Ill., has taken over the practice of his brother, Dr. J. R. Merrick (O. S. U. '22) at Forreston, Ill. The latter has been appointed an assistant state veterinarian.

DR. E. McELWEE (O. S. U. '27), of Lisbon, Ohio, recently took the Pasteur treatment. In removing the head from a rabid dog, for the purpose of sending it for laboratory examination, he accidentally wounded his hand.

DR. J. F. DeVINE (Amer. '98), of Goshen, N. Y., judged the harness horses and ponies, as well as the 3- and 5-gaited saddle classes, at the second annual Dewitt Horse Show, held at Knollwood Farms, Dewitt, N. Y., August 25-26.

DR. H. G. TULLY (Corn. '29), formerly of Glendale, Calif., is now located at Canoga Park, Calif., where he is specializing in diseases of the reproductive tract, while working part time for the State Department of Agriculture.

DR. J. B. ENGLE (Corn. '26), of Summit, N. J., was a visitor to Chicago in September. He spent about two weeks taken in the sights of A Century of Progress and looking over the veterinary hospitals in and around the Windy City.

DR. H. V. PERSELLS (K. C. V. C. '12), until recently a member of the veterinary faculty of the Georgia State College of Agriculture, has accepted a position on the food-inspection force of the Department of Public Welfare, Saint Louis, Mo.

DR. DAVID F. FOX (Chi. '91), of Sacramento, Calif., was seriously injured the early part of September, when he was kicked by a horse while he was suturing a wound. He received fractures of several ribs and extensive wounds about the head and face.

DR. ARCADIO C. GONZAGA (U. Phil. '26), who has been at the New York State Veterinary College the past year, has returned to the Philippines. His new address will be: College of Veterinary Science, University of the Philippines, Manila, P. I.

DR. L. E. STARR (O. S. U. '13), of the Virginia Polytechnic Institute, Blacksburg, Va., received the degree Doctor of Philosophy from the University of Virginia for his studies on undulant fever and its relation to brucellosis in cattle and swine in Virginia.

DR. R. G. ELLIOTT (Ont. '32), who is associated in practice with his father, Dr. J. W. Elliott (Ont. '90), at Aberdeen, S. Dak., acted as official health inspector for the South Dakota Department of Agriculture at the State Fair held at Huron, September 11-15.

DR. E. L. HACKNEY (Chi. '18), who has been located at Herrin, Ill., for a number of years, has removed to Marion, Ill., where he has taken over the practice of his brother, Dr. W. F. Hackney (Chi. '09), who has received an appointment as an assistant state veterinarian.

DR. GEORGE W. PEDIGO (Chi. '10), of Glasgow, Ky., has been appointed a member of the Kentucky State Board of Veterinary Medical Examiners by Governor Laffoon, for a four-year term ending July 1, 1937. Dr. Pedigo succeeds Dr. J. A. Winkler (Cin. '18), of Fort Thomas, Ky.

DR. GEORGE E. JACOBI (O. S. U. '20) was prevented from attending the Chicago convention on account of injuries he received in an automobile accident near Neillsville, Wis., while driving from Goshen, N. Y., to Minneapolis, Minn. Dr. Jacobi's car was struck head-on by a machine driven by an intoxicated motorist on the wrong side of the road.

DR. ALFRED SAVAGE (Corn. '14), who has been at the head of the Department of Bacteriology and Pathology of the Manitoba Agricultural College since 1921, has been appointed dean of the institution by the Board of Governors. Dr. Savage will continue his teaching duties while carrying on his administrative work as dean of the faculty.

